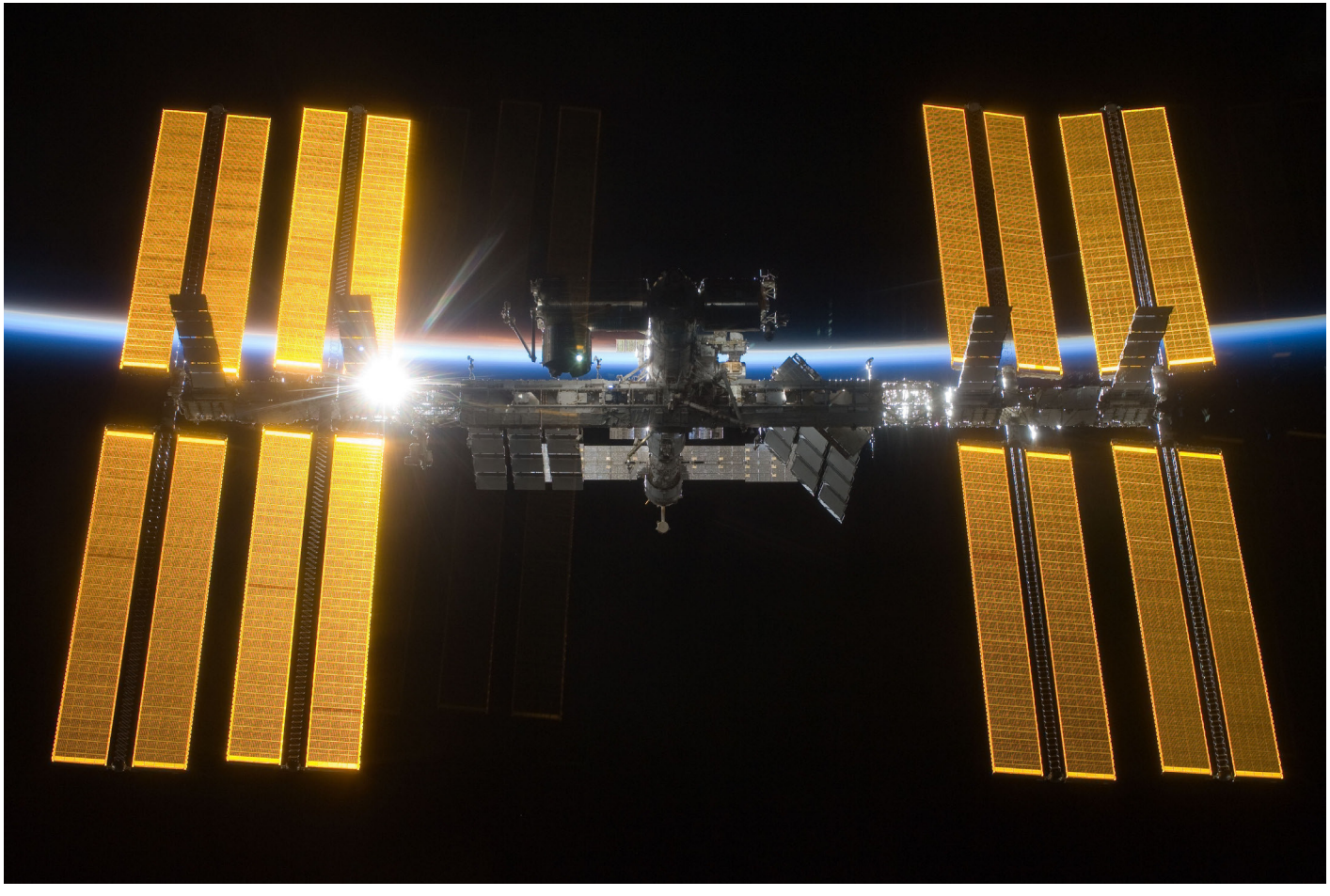

Human Space Flight

INTERNATIONAL

PATCH

HANDBOOK

APOLLO / SOYUZ - MISSION

SOYUZ / MIR - MISSION

SOYUZ / INTERNATIONAL SPACE STATION - MISSION

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EX ASTRUM, INTELLIGENDO
APOLLO-CORE
SHUTTLE-MVP
INTERNATIONAL SPACE STATION

International Patch Handbook

Werner Ackermann

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Collectors of vintage space mission patches will often use the term "crew patch" to refer to a particular design of mission patch, usually a rare and highly sought after version. This site is intended as kind of a field guide to crew patches for the serious space patch collector.

What is a "crew patch"?

For collectors of vintage embroidered space mission patches there tends to be one patch in particular for each mission that is considered the definitive "Crew Patch". The main criteria for this patch are that it should have been used by the crew themselves at some stage around the time of the mission itself, and that it should be rare, and thus challenging to collect. For some missions the identity of the "crew patch" is obvious, but for others it's more difficult to say which patch can really meet the criteria mentioned above.

What are these "Crew Souvenir patches"?

On most missions a number of embroidered patches were carried by the crews as souvenirs, and others placed on the flight by US - NASA to be used in official presentations. In many cases these patches were examples of the "Crew Patch" as described above.
In other cases these may have been regular patch manufatories versions of the mission patch. These are categorized as "Crew Souvenir patches" any designs of which examples were carried on the flight or used by US – NASA at the time of the flight but which don't fall into the above categories - i.e. they are not the crew patch, or a commonly-available and widely - distributed design.
Another group of patches that could be classified in this way are those designs used by members of the crew not at the time of the mission itself but at some later stage. These terms are fairly arbitrary, so should not be taken as a definitive classification of a particular patch. Many patches that can't be classified as Crew Patches or Crew Souvenir Patches are both extremely rare and highly collectible and in many cases worth as much as, or more than, the so-called 'Crew Patches'.

Apollo-Sojus-Test-Projekt

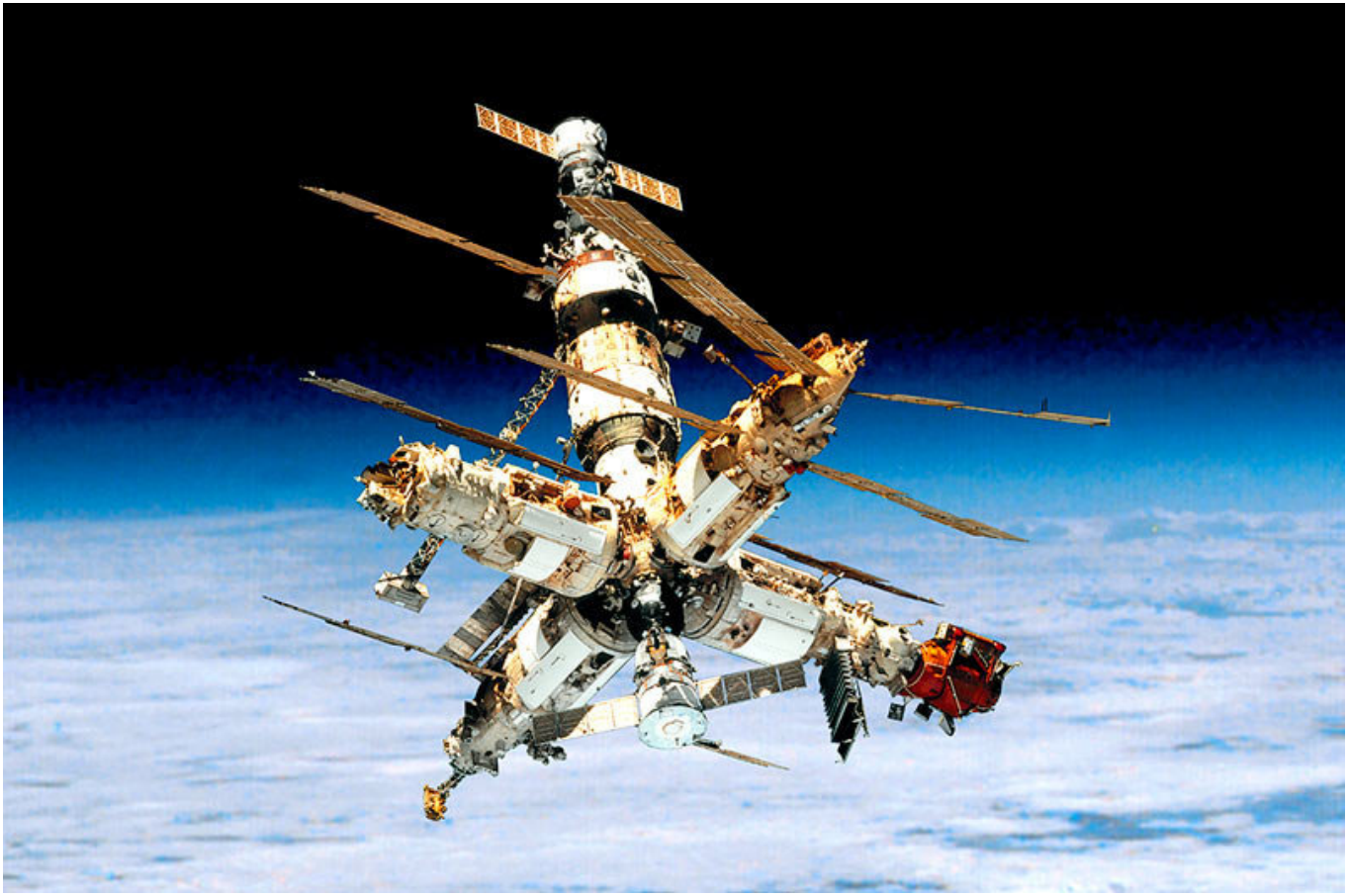
ASTP

The Apollo–Soyuz Test Project (ASTP) (Russian: Экспериментальный полёт «Аполлон» - «Союз» (ЭПАС), *Eksperimentalniy polyot Apollon-Soyuz*, lit. "Experimental flight Apollo-Soyuz"), conducted in July 1975, was the first joint U.S.–Soviet space flight, as a symbol of the policy of détente that the two superpowers were pursuing at the time. It involved the docking of an Apollo Command/Service Module with the Soviet Soyuz 19.

Mission type	Cooperative / scientific
Mission duration	Soyuz: 5d 22h 30min Apollo: 9d 01h 28min
Spacecraft	Soyuz 19 Apollo CSM-111
Members	Alexey Leonov (RUS) Valeri Kubasov (RUS) Thomas P. Stafford (USA) Vance D. Brand (USA) Donald K. Slayton (USA)
Launch site	Soyuz: Baikonur Cosmodrome, Gagarin's Startplace Apollo: Kennedy Space Center, LC-39B
Launch date	Soyuz: July 15, 1975 , 12:20:00 (UTC) Apollo: July 15, 1975 , 19:50:00 (UTC)
Docking date	First: July 17, 1975 , 16:19:09 (UTC)
Undocking date	Last: July 19, 1975 , 15:26:12 (UTC)
Time docked	1 day, 23 hours, 07 min, 03 sec
Landing date	Soyuz: July 21, 1975 , 10:50:00 (UTC) Apollo: July 24, 1975 , 21:18:00 (UTC)

Official emblem of the Apollo-Soyuz Test Project (ASTP) chosen by NASA and the Soviet Academy of Sciences

Of circular design, another ASTP patch has a colored border area, outlined in red, with the names of the five crewmen and the words Apollo in English and Soyuz in Russian around an artist's concept of the Apollo and Soyuz spacecraft about to dock in Earth orbit. The bright Sun and the blue and white Earth are in the background. The white stars on the blue background represent American Astronauts. The dark gold stars on the red background represent Soviet Cosmonauts.



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Human Space Flight

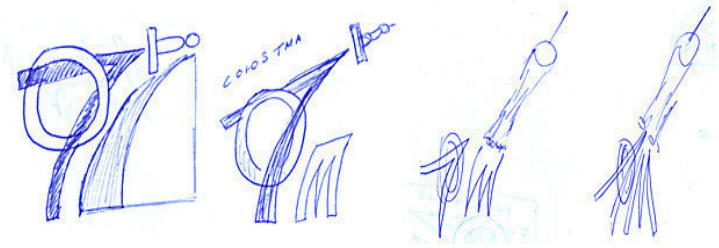
INTERNATIONAL PATCH HANDBOOK

SOYUZ / MIR - MISSION
1986 - 2001

PREFACE

Okay, about the blue number 7 in Aurora. If you look at the color shot of the whole design you'll see the reason for doing the number in blue. With the name in white and the auroras in reds, yellows and even orange it just made sense to do the number in blue.

After Scotty's flight we were really glad I had made the number in blue and that was for idealogical reasons. The Russians/Soviet Union made a big thing out of the name Aurora giving a lot of play in their papers (and internationally) about the fact that the first ship to fire a shot in their revolution against the Tsar was named Aurora. We were just glad I hadn't painted the 7 in red for that particular name. We hadn't even given the USSR's ship Aurora a thought so the choice of color, before Scotty's flight, hadn't even come into play. As I said, it was just the combination of colors that mattered...and I was sure glad of it when the Russians began their crowing about the name. Let's face it, the USSR had a thing about the color red.



Top:
Cece Bibby - the 'mother of all space art' - showing the Aurora-7 logo to Scott Carpenter in 1962, along with her comments from November 2001.
Bottom:
a series of simple sketches, made on December 5, 2010, shows how the idea for a patch developed.

MIR (Russian: Мир, IPA: [ˈmʲir]; lit. Peace or World) was a space station that operated in low Earth orbit from 1986 to 2001, owned at first by the Soviet Union and then by Russia. MIR was the first modular space station and was assembled in orbit from 1986 to 1996.
MIR served as a microgravity research laboratory in which crews conducted experiments in biology, human biology, physics, astronomy, meteorology and spacecraft systems in order to develop technologies required for the permanent occupation of space.
MIR's deorbit was carried out in three stages:
Reentry into Earth's atmosphere (100 km/60 mil) of the 15-year-old space station occurred at 05:44 UTC near Nadi, Fiji. Major destruction of the station began around 05:52 UTC and most of the unburned fragments fell into the South Pacific Ocean around 06:00 UTC.

M I R EXPEDITION 1

From left to right: Leonid Kizim, Vladimir Solovyov

Launch Date : March 13, 1986 , 12:33 UTC
Launch Vehicle : SOYUZ T 15

MIR Crew : - *none* -

Extended MIR Crew : Cdr. Kizim (Russia), FE Solovyov (Russia)

Landing Date : July 16, 1986 , 13:34 UTC

Summary :
Soyuz T-15 was launched on March 13, 1986 within a month following launch of the MIR base block on February 19, 1986. Cosmonauts Leonid Kizim and Vladimir Solovyov docked to the front port of the new station two days later and, as her first crew, they were busy activating it over the next 52 days. On May 5, the cosmonauts undocked Soyuz T-15 from MIR and directed it towards the near-by (2500km!) Salyut-7 station, unoccupied since November 1985. They arrived 29 hours later and used the aft port of the Salyut-7/Kosmos-1686 combination for docking. Aboard Salyut-7 - visited for the final time - they stripped some 400 kg of equipment. They left Salyut-7 on June 25 and flew back to MIR. The cosmonauts returned to Earth in their Soyuz T-15 capsule on July 16, 1986.
MIR to remain unmanned until 1987.

SOYUZ T 15

The first mission to MIR did not have its own patch.
The cosmonauts were launched with the typical Salyut configuration on their Sokol suits: a wedge-shaped Salyut patch on their chest, a Soviet seal on the right sleeve and a CCCP-flag (red felt background, square letters) on the left sleeve.

M I R EXPEDITION 2

From left to right: Yuri Romanenko, Aleksandr Laveikin

Launch Date : February 5, 1987 , 21:38 UTC
Launch Vehicle : SOYUZ TM 2

MIR Crew : - *none* -

Extended MIR Crew : Cdr. Romanenko (Russia), FE Laveikin (Russia)

Summary :
Soyuz TM-2 was the first manned version of the Soyuz-TM-spacecraft, specially designed for flights to the MIR station. Soyuz TM-2 was launched on February 5, 1987 with cosmonauts Yuri Romanenko and Aleksandr Laveikin. Their spaceship docked to the front of the Mir/Progress-27 complex two days later. Romanenko and Laveikin made the first spacewalks outside MIR (April 11 to dock Kvant; June 12 and 16 to attach new solar arrays).

On June 16 doctors on the ground started to see something wrong with Laveikin's cardiovascular system. There was no immediate threat to his health, but doctors decided to bring him home as soon as possible (see MIR Visiting Crew 1).

SOYUZ TM 2

The cosmonauts of Soyuz TM-2 were launched with a new Sokol suit, which was specially designed for the TM-ship.
The typical wedge-shaped Salyut patch on the front of the suits was replaced by a MIR-patch with roughly the same shape and the familiar Zvezda-design. The cosmonauts had a Soviet seal on the right sleeve and a modern type CCCP-flag (rounded letters, fully embroidered type) on the left sleeve.

MIR VISITING CREW 1

From left to right: Muhammed Faris, Aleksandr Viktorenko, Aleksandr Aleksandrov

Launch Date : July 22, 1987 , 1:59 UTC
Launch Vehicle : SOYUZ TM 3

MIR Crew : *Cdr. Romanenko (Russia), FE Laveikin (Rus.)*

Extended MIR Crew : Viktorenko (Russia), Aleksandrov (Russia)
Muhammed Faris (Syria)

Landing Crew : Viktorenko (Russia), Laveikin (Russia),
Muhammed Faris (Syria)
Landing Date : July 30, 1987 , 1:04 UTC
Landing Vehicle : SOYUZ TM 2

Summary :
Soyuz TM-3 with Viktorenko, Aleksandrov and Syrian Muhammed Faris aboard, docked to the Kvant module of the MIR space station on July 24. They were welcomed by MIR-2 crew Romanenko and Laveikin, who had arrived at the station in February. During his week-long stay, Faris carried out research into the Earth's natural resources, conducted technological and geophysical experiments. Faris returned to Earth aboard Soyuz TM-2 on July 30, 1987, together with Viktorenko and Laveikin, who had developed „an irregularity in his heart rhythm" and had to be replaced.

SOYUZ TM 3

The mission patch was worn before and during the mission by all three Soyuz TM-3 crew members. During training, the patch was worn on either the left (Sokol) or right (training flightsuit) chest, making it more visible for pr-photography. During the mission, the patch was worn on the right sleeve by all three on both Sokol and PK-14-suits. Both suits of Faris were completed by a Syrian flag on the left sleeve, a Syrian seal on the left chest and a national Syrian aerospace-related patch on the right chest.
In addtion to the mission patch on the right sleeve of their PK-14 jackets and Sokol-suits, the Russians were wearing a CCCP-flag on their left sleeves (silk type, rounded lettering on PK-14; fully embroidered on Sokol), a Soviet seal on the left chest and a cyrilic Interkosmos-patch on the right chest. On the front of their Sokols, all three had an additional first generation MIR-patch.

M I R EXPEDITION 3

From left to right: Vladimir Titov, Musa Manarov, Anatoly Levchenko

Launch Date : December 21, 1987 , 11:18 UTC
Launch Vehicle : SOYUZ TM 4

MIR Crew : *Cdr. Romanenko (Russia), FE Aleksandrov (Rus.)*
(new MIR Expedition 2)

Extended MIR Crew : Titov(Russia), Manarov (Russia),
Levchenko (Russia)

Landing Crew : Romanenko (Russia), Aleksandrov (Rus.),
Levchenko (Russia)
Landing Date : December 29, 1987 , 9:16 UTC
Landing Vehicle : SOYUZ TM 3

Summary :
Soyuz TM-4 was launched on December 21, 1987. Aboard were Vladimir Titov, Musa Manarov and Anatoly Levchenko. Titov and Manarov took over control of MIR as the EO-3 crew; Levchenko returned to Earth on December 29, 1987, with EO-2 crewmembers Yuri Romanenko and Aleksandr Aleksandrov.

SOYUZ TM 4

Being a "routine" mission, not involving any foreign cosmonauts, Soyuz TM-4 did not have it's own patch.

Crewmember Musa Manarov, however, was the first to use the modern "rounded" MIR-patch on his Sokol (patch above).
The new patch did not have the six stars and looked more like the old square Soyuz-patch.

M I R VISITING CREW 2

From left to right: Victor Savinich, Anatoly Solovyev, Alexander Aleksandrov

Launch Date : June 7, 1988 , 14:03 UTC
Launch Vehicle : SOYUZ TM 5

MIR Crew : *Cdr. Titov (Russia), FE Manarov (Russia)*

Extended MIR Crew : Solovyev (Russia), Savinich (Russia), Aleksandrov (Bulgaria) (not to be confused with the Soviet cosmonaut with the same name!)

Landing Crew : Solovyev (Russia), Savinich (Russia), Aleksandrov (Bulgaria)
Landing Date : June 17, 1988 , 10:13 UTC
Landing Vehicle : SOYUZ TM 4

Summary :
The cosmonauts docked to the Kvant-1 module at MIR's aft port on June 9 and joined the EO-3 crew, consisting of Vladimir Titov and Musa Manarov. They conducted joint medical experiments and made photography observations of Bulgaria. The three visitors left MIR aboard Soyuz TM-4 on June 17, leaving their fresh TM-5 spaceship behind.

SOYUZ TM 5

The patch worn on the training IVA, training Sokols and flight Sokols (left) had eight small stars, just like the original artwork. The one in the Presentation Patch Set and the one seen on Aleksandrov's PK14-suit, had seven bigger stars. Also note that these patches did not have the color variation in the globe, as seen in the artwork and the eight-star version. Also, it lacks the white line between the blue horizon and the black space and seems to have a thicker yellow border. We did also see a picture of this version with eight stars though.
There might even be a fourth variation: the eight-star patch has only two shades of blue in the globe. The images of the crew show that the original patches had three different shades.

M I R VISITING CREW 3

From left to right: Abdullah Ahad Mohmand, Vladimir Lyakhov, Valeri Polyakov

Launch Date : August 29, 1988 , 4:23 UTC
Launch Vehicle : SOYUZ TM 6

MIR Crew : *Cdr. Titov (Russia), FE Manarov (Russia)*

Extended MIR Crew : Lyakhov (Russia), Polyakov (Russia), Abdullah Ahad Mohmand (Afganistan)

Landing Crew : Lyakhov (Russia), Ahad Mohmand (Afganistan)
Landing Date : September 9, 1988 , 0:49 UTC
Landing Vehicle : SOYUZ TM 5

Summary :
Soyuz TM-6 was launched on August 29, 1988. The ship was commanded by Vladimir Lyakhov and carried Afghan Abdullah Ahad Mohmand for a week-long visit to the MIR station and physician Valeri Polyakov, who was heading for a long duration stay with the Titov/Manarov and Volkov/Krikalev MIR-crews. Soyuz TM-5 (the crew's return vehicle) undocked from MIR as planned. Thirty seconds before the re-entry burn, Lyakhov noticed a problem with one of the sensors. As a result, the cosmonauts had to stay in orbit for another day, without any food. The third landing attempt on September 7 was successful.

SOYUZ TM 6

The TM-6 patch was clearly hand-made - it seems that no single patch is the same. This is especially visible in the star pattern.
At left is the version as seen in the book „40 Let Kosmicheskogo Polviga“ (Moscow, 2000). Note that the number of stars is different (8 instead of 14) and that the "v" in the upper right corner is smaller.
Some picture shows the patch which has 13 or 14 stars, which are much more horizontally aligned compared to other patches,which are part of a Presentation Patch Set for this mission.

M I R EXPEDITION 4

From left to right: Jean-Loup Chrétien, Aleksandr Volkov, Sergei Krikalev

Launch Date : November 26, 1988 , 15:49 UTC
Launch Vehicle : SOYUZ TM 7

MIR Crew : *Cdr. Titov (Russia), FE's Manarov (Russia), Polyakov (Russia)*

Extended MIR Crew : Volkov (Russia), Krikalev (Russia), Jean-Loup Chrétien (France)

Landing Crew : Titov (Russia), Manarov (Russia), Jean-Loup Chrétien (France)
Landing Date : December 21, 1988 , 9:57 UTC
Landing Vehicle : SOYUZ TM 6

Landing Crew : Volkov (Russia), Krikalev (Russia), Polyakov (Russia)
Landing Date : April 27, 1989 , 2:57 UTC
Landing Vehicle : SOYUZ TM 7

Summary :
At the end of EO-4 in April 1989, due to delays in the launch schedule, MIR was left unmanned, and all three EO-4 crew members were transported back to Earth.

SOYUZ TM 7

The original patch shown (left) and the original artwork (right).

The Space Commerce Corporation reproduction (left), the Stewart Aviation reproduction (right)

On their flight Sokols, all three TM-7 cosmonauts were wearing the Aragatz-mission patch on the right sleeve and a second generation, stylized MIR patch on the front.

M I R EXPEDITION 5

From left to right: *Aleksandr Viktorenko, Aleksandr Serebrov*

Launch Date : September 5, 1989 , 21:38 UTC
Launch Vehicle : SOYUZ TM 8

MIR Crew : - *none* -

Extended MIR Crew : Cdr. Viktorenko (Russia), FE Serebrov (Russia)

SOYUZ TM 8

Summary :
Soyuz TM-8 was launched on September 6, 1989 at 00:38 Moscow time. Commander of the mission was Aleksandr Viktorenko, with Aleksandr Serebrov as the flight engineer.
The crew started preparing for one of the biggest events of their mission: arrival of the 20-ton Kvant-2 module. Next was a series of five spacewalks. Viktorenko and Serebrov undocked their TM-8 ship from MIR on February 19, 1990 and landed at 07:36 Moscow time, 55 kilometers Northeast of Arkalyk in Kazachstan. (see MIR Expedition 6).
Their mission had lasted 166 days, 6 hours, 58 minutes and 15 seconds.

Except for the souvenir-patch shown at the top of this page, the mission did not have any official patch.
The cosmonauts were launched with a standard patch configuration on their Sokols: a second generation MIR-patch at the front of their suits, a CCCP flag (rounded letters, fully embroidered) on the left sleeve and a Soviet seal (yellow border) at the left lower chest.

M I R EXPEDITION 6

From left to right: Anatoly Solovyev, Aleksandr Balandin

Launch Date : February 11, 1990 , 6:16 UTC
Launch Vehicle : SOYUZ TM 9

MIR Crew : *Cdr. Viktorenko (Russia), FE Serebrov (Russia)*

Extended MIR Crew : Solovyev (Russia), Balandin (Russia)

Landing Crew : Viktorenko (Russia), Serebrov (Russia)
Landing Date : February 19, 1990 , 4:36 UTC
Landing Vehicle : SOYUZ TM 8

Summary :
During docking, cosmonauts aboard MIR noticed that three of the eight thermal blankets on the descent module of the approaching Soyuz-TM 9 spacecraft had come loose from their attachments. While on board, the EO-6 crew conducted an extensive programme of geophysical and astrophysical research, experiments on biology and biotechnology and work on space materials science.
A first EVA was conducted on July 17, (7h 16m), in which Soyuz TM-9 thermal blankets was repaired. Another EVA was performed on July 26 (3h 31m), in order to repair the Kvant2 Module hatch, but this failed.

SOYUZ TM 9

The mission did not have any official patch.

The cosmonauts were launched with a standard patch configuration on their Sokols: a second generation MIR-patch at the front of their suits, a CCCP flag (rounded letters, fully embroidered) on the left sleeve and a Soviet seal (yellow border) at the left lower chest.

M I R EXPEDITION 7

From left to right: Gennadi Manakov, Gennady Strekalov

Launch Date : August 1, 1990 , 9:32 UTC
Launch Vehicle : SOYUZ TM 10

MIR Crew : *Cdr. Solovyev (Russia), FE Balandin (Russia)*

Extended MIR Crew : Manakov (Russia), Strekalov (Russia)

Landing Crew : Solovyev (Russia), Balandin (Russia)
Landing Date : August 9, 1990 , 7:34 UTC
Landing Vehicle : SOYUZ TM 9

Summary :
While on board, the crew conducted an extensive programme of geophysical and astrophysical research, experiments on biology and biotechnology and work on space materials science.
They also performed extensive maintenance and repair work on the damaged hatch of the Kvant-2-module. This repair was only partially successful.

SOYUZ TM 10

The mission did not have any official patch.

The cosmonauts were launched with a standard patch configuration on their Sokols: a second generation MIR-patch at the front of their suits, a CCCP flag (rounded letters, fully embroidered) on the left sleeve and a Soviet seal (yellow border) at the left lower chest.

M I R EXPEDITION 8

From left to right: Toyohiro Akiyama, Viktor Afanasyev, Musa Manarov

Launch Date : December 1, 1990 , 8:14 UTC
Launch Vehicle : SOYUZ TM 11

MIR Crew : *Cdr. Manakov (Russia), FE Strekalov (Russia)*

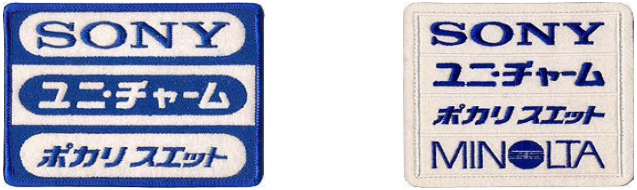
Extended MIR Crew : Afanasyev (Russia), Manarov (Russia), Reporter Toyohiro Akiyama (Japan)

Landing Crew : Manakov (Russia), Strekalov (Russia), Toyohiro Akiyama (Japan)
Landing Date : December 10, 1990 , 6:08 UTC
Landing Vehicle : SOYUZ TM 10

Summary :
Toyohiro Akiyama was a reporter/space tourist for a Japanese television network. (first commercial spaceflight).
The journalist was scheduled to make one 10-min TV broadcast and two 20-min radio broadcasts each day. Electrical power, video and TV system incompatibilities forced the Japanese to make extensive use of converters. Tokyo Broadcasting System (TBS) broadcast Akiyama's landing live from Kazakhstan.

SOYUZ TM 11

The official crew patch for the Soviet Soyuz TM-11 mission, which delivered the EO-8 and Cosmoreporter crews to the space station MIR.



Blue Sony, Unicharm and Pocari Sweat patch (left) and the white Sony, Unicharm, Pocari Sweat and Minolta patch as worn on Akiyama's Sokol and PK-flight costume with jacket.

M I R EXPEDITION 9

From left to right: Anatoly Artsebarsky, Helen Sharman, Sergei Krikalev

Launch Date : May 18, 1991 , 12:50 UTC
Launch Vehicle : SOYUZ TM 12

MIR Crew : *Cdr. Afanasyev (Russia), FE Manarov (Russia)*

Extended MIR Crew : Artsebarsky (Russia), Krikalev (Russia), Helen Sharman (Great Britain)

Landing Crew : Afanasyev (Russia), Manarov (Russia), Helen Sharman (Great Britain)
Landing Date : May 26, 1991 , 10:04 UTC
Landing Vehicle : SOYUZ TM 11

Summary :
Delivered the EO-9 crew to MIR, in addition to the British Project Juno mission. Sharman, the first and so far only Briton to travel into space whilst not holding American citizenship, returned to Earth aboard SOYUZ TM 11 after 8 days.

SOYUZ TM 12

The official crew patch for the Soviet Soyuz TM 12 mission, which delivered the EO-9 and Project Juno crews to the space station MIR.

The patch was redrawn by Jorge Cartes (JCR) from Spacepatches.nl.

The logo features a flying goose, taken from the Greek myth of Aphrodite's chariot being drawn by geese, and that of the Temple of Juno in Rome which was guarded by geese.

M I R EXPEDITION 10

From left to right: Franz Viehböck, Alexandr Volkov, Toktar Aubakirov

Launch Date : October 2, 1991 , 5:59 UTC
Launch Vehicle : SOYUZ TM 13

MIR Crew : *Cdr. Artsebarsky (Russia), FE Krikalev (Russia)*

Extended MIR Crew : Volkov (Russia), Aubakirov (Russia / Kasachstan)
Franz Viehböck (Austria)

Landing Crew : Artsebarsky (Russia), Aubakirov (Russia / Ka.),
Franz Viehböck (Austria)
Landing Date : October 10, 1991 , 4:12 UTC
Landing Vehicle : SOYUZ TM 12

Summary :
The last manned spaceflight ever launched by the Soviet Union, Soyuz TM 13 delivered a third crew member to MIR for EO-10 in addition to carrying the first Austrian to go into space as part of the Austromir '91 mission. Aubakirov and Viehböck returned to Earth aboard SOYUZ TM 12 after 8 days.

SOYUZ TM 13

The official crew patch for the Soviet Soyuz TM 13 mission, which delivered the Austromir crew and part of the EO-10 crew to the space station MIR.

M I R EXPEDITION 11

From left to right: Klaus-Dietrich Flade, Alexander Viktorenko, Alexander Kaleri

Launch Date : March 17, 1992 , 10:55 UTC
Launch Vehicle : SOYUZ TM 14

MIR Crew : *Cdr. Volkov (Russia), FE Krikalev (Russia)*

Extended MIR Crew : Viktorenko (Russia), Kaleri (Russia), Klaus-Dietrich Flade (Germany)

Landing Crew : Volkov (Russia), Krikalev (Russia), Klaus-Dietrich Flade (Germany)
Landing Date : March 25, 1992 , 8:51 UTC
Landing Vehicle : SOYUZ TM 13

Summary :
The first manned spaceflight to be launched by the Russian Federation. Soyuz TM-14 delivered the EO-11 crew to MIR in addition to Flade, flying the German MIR '92 mission, who returned to Earth aboard Soyuz TM-13 after 8 days. Suffered a landing system malfunction, causing its descent module to turn over. It came to rest upside down, trapping its occupants inside until it could be righted.

SOYUZ TM 14

Klaus-Dietrich Flade became the second German to visit a space station when he reached MIR with the Vityaz crew. The first was Sigmund Jähn of East Germany, who visited Salyut 6 in 1978. Flade conducted 14 German experiments as part of Germany's preparation for participation in the Freedom and Columbus space station projects.

M I R EXPEDITION 12

From left to right: Michel Tognini, Anatoly Solovyev, Sergei Avdeyev

Launch Date : July 27, 1992 , 6:09 UTC
Launch Vehicle : SOYUZ TM 15

MIR Crew : *Cdr. Viktorenko (Russia), FE Kaleri (Russia)*

Extended MIR Crew : Solovyev (Russia), Avdeyev (Russia), Michel Tognini (France)

Landing Crew : Viktorenko (Russia), Kaleri (Russia) Michel Tognini (France)
Landing Date : August 10, 1992 , 1:05 UTC
Landing Vehicle : SOYUZ TM 14

Summary :
Delivered the EO-12 crew to MIR, in addition to the French Antarès mission.
Tognini returned to Earth aboard Soyuz TM-14 after 14 days.
After landing, the capsule rolled down a hill, stopping on its side about 150 m from a salt marsh.

SOYUZ TM 15

Michel Tognini, passenger aboard Soyuz TM 15, was the third Frenchman to visit a space station.
He conducted ten experiments using 300 kg of equipment delivered by Progress-M flights.
Tognini spent 2 weeks in space as part of ongoing space cooperation between Russia and France.

M I R EXPEDITION 13

From left to right: Gennadi Manakov, Aleksandr Poleshchuk

Launch Date : January 24, 1993 , 5:59 UTC
Launch Vehicle : SOYUZ TM 16

MIR Crew : *Cdr. Solovyev (Russia), FE Avdeyev (Russia)*

Extended MIR Crew : Manakov (Russia), Poleshchuk (Russia)

Landing Crew : Solovyev (Russia), Avdeyev (Russia)
Landing Date : February 1, 1993 , 3:50 UTC
Landing Vehicle : SOYUZ TM 15

Summary :
Delivered the EO-13 crew to MIR. Became the only Soyuz spacecraft to dock at Kristall's distal APAS-89 port in order to check the port in preparation for the Shuttle-MIR flights which followed.

SOYUZ TM 16

The flown Vadim Molchanov "launch"-patch

The EO-13 patch, drawn by Konstantin Lantratov, as it appeared on the cover of the January 18, 1993 issue of Novosti Kosmonavtiki. The Russian flag trailing the Soyuz, as seen in the embroidered patch, was added to the design later.

M I R EXPEDITION 14

From left to right: Aleksandrovich Serebrov, Vasily Tsibliyev, Jean-Pierre Haigneré

Launch Date : July 1, 1993 , 14:33 UTC
Launch Vehicle : SOYUZ TM 17

MIR Crew : *Cdr. Manakov (Russia), FE Poleshchuk (Russia)*

Extended MIR Crew : Tsibliyev (Russia), Serebrov (Russia), Jean-Pierre Haigneré (France)

Landing Crew : Manakov (Russia), Poleshchuk (Russia), Jean-Pierre Haigneré (France)
Landing Date : July 22, 1993 , 6:42 UTC
Landing Vehicle : SOYUZ TM 16

Summary :
Delivered the EO-14 crew to MIR, in addition to the French Altair mission. Haigneré returned to Earth aboard Soyuz TM 16 after 21 days.

SOYUZ TM 17

Being an international mission, the Altair patch was the official mission logo. It was probably produced through CNES. On launch day, the cosmonauts were also wearing a personal "launch" patch on their Sokols, however.
It was fully embroidered, but not sewn to the Sokol suit - it was tied around the left arm with two straps, so the crew could keep it a secret until the last possible moment. The patch was designed by "a friend" of Tsibliev and only three were produced.

M I R EXPEDITION 15

From left to right: Valeri Polyakov, Viktor Afanasyev, Yury Usachov

Launch Date : January 1, 1994 , 10:05 UTC
Launch Vehicle : SOYUZ TM 18

MIR Crew : *Cdr. Tsibliyev (Russia), FE Serebrov (Russia)*

Extended MIR Crew : Afanasyev (Russia), Usachev (Russia), Polyakov (Russia)

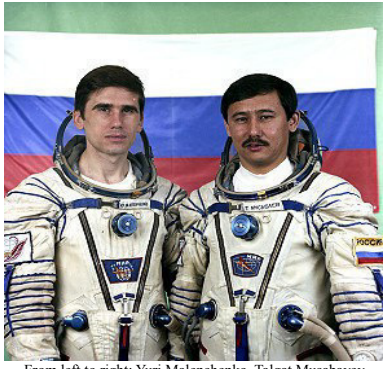
Landing Crew : Tsibliyev (Russia), Serebrov (Russia)
Landing Date : January 14, 1994 , 8:18 UTC
Landing Vehicle : SOYUZ TM 17

Summary :
Delivered the EO-15 crew to MIR, with Polyakov remaining in space for over 437 days, the current world record for longest single spaceflight.

SOYUZ TM 18

The patch was not yet official. There are no indication that the emblem was actually used during the mission. Maybe, Tsibliev's personal TM-17 mission patch had been discussed by officials and maybe the crew had been instructed not to wear any personal patches on their Sokols. Like the EO-14 patch, the EO-15 patch was seen again during Shuttle-Mir training, underlining the fact that it was accepted as an official mission logo by the cosmonauts themselves. The crew did take a second mission logo with them. It was not an embroidered patch, but a sticker. With the cosmonaut's full initials following their surnames, it has something in common with the EO-15 Tsibliev Patch.

M I R EXPEDITION 16



From left to right: Yuri Malenchenko, Talgat Musabayev

Launch Date : July 1, 1994 , 12:25 UTC
Launch Vehicle : SOYUZ TM 19

MIR Crew : *Cdr. Afanasyev (Russia), FE's Usachev (Russia), Polyakov (Russia)*

Extended MIR Crew : Malenchenko (Russia), Musabayev (Kasachstan)

Landing Crew : Afanasyev (Russia), Usachev (Russia)
Landing Date : July 9, 1994 , 10:33 UTC
Landing Vehicle : SOYUZ TM 18

Summary :
Delivered the EO-16 crew to MIR. The crew conducted medical experiments (research of problems of weightlessness in long term mission) and experiments in materials science, Earth observation, astrophysics and biotechnology.

SOYUZ TM 19

Soyuz TM 19 patch

MIR Expedition 16 patch

The color scemes of both patches were approximately identical, there was a difference in the central figure: on the "ship" emblem (left), there was a flying Soyuz; on the other (right) was the MIR-complex, with the Kristal and Kvant modules and the panel of solar batteries. On both emblems, there were flags of Russia and Kazakhstan.
The crew has received the emblems and they liked them. Yuri Malenchenko also has promised to take a pair of EO-16 emblems in space for Valery Poljakov." With the official photograph of the crew, the problems began. If the government of Russia saw the mission as purely Russian, then what was to be done with the Kazakhstani flag on the emblem? The explanation that this flag stood for the Kazakhstani scientific program, proved to be not very convincing. It was necessary for the TSPK photographer to make two versions of the official photograph. On one Yuri and Talgat only wore Russian symbols. On another, they were wearing the emblems, and on Talgats suit even was a Kazakhstani flag. When the cosmonauts arrived at Baikonur, a decission was made. President Yeltsin agreed with president Nazarbayev to consider the expedition Russian-Kazakhstani."

M I R EXPEDITION 17

From left to right: Aleksandr Viktorenko, Yelena Kondakova, Ulf Merbold

Launch Date : October 4, 1994 , 22:42 UTC
Launch Vehicle : SOYUZ TM 20

MIR Crew : *Cdr. Malenchenko (Russia),*
FE's Musabayev (Kasach.), Polyakov (Russia)

Extended MIR Crew : Viktorenko (Russia), Yelena Kondakova (Rus.), Ulf Merbold (Germany)

Landing Crew : Malenchenko (Russia), Musabayev (Kasachstan), Ulf Merbold (Germany)
Landing Date : November 11, 1994 , 11:18 UTC
Landing Vehicle : SOYUZ TM 19

Summary :
As part of the program Euromir-94 Ulf Merbold and the resident crew performed a scientific research program to test organism in weightlessness and long duration missions. Ulf Merbolds experiment program included 23 life sciences, 4 materials sciences, and 3 technology experiments.

SOYUZ TM 20

The patch is in the shape of a shield, referring to the crew's nickname: Knights. According to Lantratov, the patches were designed with only some input by Elena Kondakova, because Viktorenko and Merbold were not available. The patches were presented to the crew during training. Following the succes of TM 19, he might have believed the patch would again be worn on the Sokol suits. There are no indications, however, that the patches were actually worn anytime before, during or after the mission. Flying an international mission, the TM-20 crew used the Euromir-94 patch as their official logo (below).

M I R EXPEDITION 18

From left to right: Norman Thagard, Vladimir Dezhurov, Gennadi Strekalov

Launch Date : March 14, 1995 , 6:12 UTC
Launch Vehicle : SOYUZ TM 21

MIR Crew : *Cdr. Viktorenko (Russia), FE's Yelena Kondakova (Russia), Polyakov (Russia)*

Extended MIR Crew : Dezhurov (Russia), Strekalov (Russia), Thagard (USA)

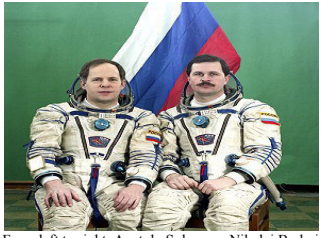
Landing Crew : Viktorenko (Russia), Yelena Kondakova (Rus.), Polyakov (Russia)
Landing Date : March 22, 1995 , 4:04 UTC
Landing Vehicle : SOYUZ TM 20

Summary :
Delivered the EO-18 crew to MIR including Thagard, flying the first US long-duration mission of the Shuttle-MIR programme. The entire crew returned to Earth aboard Space Shuttle ATLANTIS at the conclusion of STS-71.

SOYUZ TM 21

The official crew patch for the Russian SOYUZ TM 21 mission, which delivered the EO-18 crew to the space station MIR.
The MIR-18 patch was designed and manufactured in the United States, probably by AB Emblem.
Konstantin Lantratov: "For the first Russian - American flight, the patch was designed by the Americans. It did not make sense to compete with them, although I had a version at hand."

M I R EXPEDITION 19



From left to right: Anatoly Solovyev, Nikolai Budarin

Launch Date : June 27, 1995 , 19:32 UTC
Launch Vehicle : SPACE SHUTTLE , STS-71 , ATLANTIS

MIR Crew : *Cdr. Dezhurov (Russia), FE's Strekalov (Russia), Thagard (USA)*

Extended MIR Crew : Solovyev (Russia), Budarin (Russia) **and** STS-71-Crew

Landing Crew : STS-71-Crew **and** Dezhurov (Russia), Strekalov (Russia), Thagard (USA)

Landing Date : July 7, 1995 , 14:55 UTC
Landing Vehicle : SPACE SHUTTLE , STS-71 , ATLANTIS

Summary :
The primary objectives of this flight were to rendezvous and perform the first docking between the Space Shuttle and the Russian Space Station MIR on June 29. In the first U.S.-Soviet docking in twenty years, ATLANTIS delivered a relief crew of two cosmonauts Solovyev and Budarin to MIR. Other prime objectives were on-orbit joint United States of America-Russian life sciences investigations aboard „SPACELAB / MIR“, logistical resupply of the MIR.

M I R EXPEDITION 19

The two EO-19 cosmonauts were launched aboard Space Shuttle Atlantis. They were part of the STS-71 crew and their names appeared on the STS-71 patch. Still, Novosti Kosmonavtiki drew up a design for an EO-19 patch and faxed it to the Netherlands. Luc van den Abeelen improved the composition of the parachute lines and the Shuttle, after which Aviation Patch Supplies produced the embroidered patch. The crew did have the patches with them during the mission - they were not attached to any clothing or flight equipment, but flown and stamped version exists.

SPACE SHUTTLE STS - 71

The crew assigned to the STS-71 mission included:

On the front row, left to right, are:
Vladimir N. Dezhurov, MIR18 crew download; Robert L. Gibson, commander; and Anatoly Y. Solovyev, MIR 19 crew upload.

On the back row, left to right, are:
Norman E. Thagard, MIR 18 crew download; Gennadiy Strelalov, MIR 18 crew download; Gregory J. Harbaugh, mission specialist; Ellen S. Baker, mission specialist; Charles J. Precourt, pilot; Bonnie J. Dunbar, mission specialist; and Nikolai Budarin, MIR 19 crew upload.

SPACE SHUTTLE STS - 71

The STS-71 crew patch design depicts the Orbiter ATLANTIS in the process of the first international docking mission of the Space Shuttle with the Russian space station MIR. The names of the 10 astronauts and cosmonauts who will fly aboard the Orbiter are shown along the outer border of the patch. The rising Sun symbolizes the dawn of a new era of cooperation between the two countries. The vehicles ATLANTIS and MIR are shown in separate circles converging at the center of the emblem symbolizing the merger of the space programs of the two spacefaring nations. The flags of the United States and Russia emphasize the equal partnership of the mission. The joint program symbol at the lower center of the patch acknowledges the extensive contributions made by the Mission Control Centers of both countries. The crew emblem was designed by aviation and space artist, Bob McCall, who also designed the crew patch for the Apollo-Soyuz project in 1975, the first international space docking mission.

M I R EXPEDITION 20

From left to right: Yuri Gidzenko, Thomas Reiter, Sergei Avdeyev

Launch Date : September 3, 1995 , 9:00 UTC
Launch Vehicle : SOYUZ TM 22

MIR Crew : *Cdr. Solovyev (Russia), FE Budarin (Russia)*

Extended MIR Crew : Gidzenko (Russia), Avdeyev (Russia), Thomas Reiter (Germany)

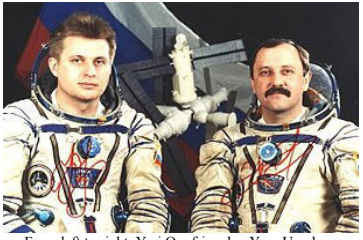
Landing Crew : Solovyev (Russia), Budarin (Russia)
Landing Date : September 11, 1995 , 6:53 UTC
Landing Vehicle : SOYUZ TM 21

Summary :
ESA's Euromir 95 mission saw Thomas Reiter (Germany) flying on Soyuz TM-22 to the MIR space station from September 1995 to February 1996. During his 179 days aboard MIR, he carried out two spacewalks and became the first ESA (and German) astronaut to perform a spacewalk. He served as Flight Engineer alongside Russian cosmonauts Yuri Gidzenko and Sergei Avdeyev.

SOYUZ TM 22

There are no indications the crew patch (above) was worn by the crew, but a flown version with MIR onboard handstamps showed up in the Superior Galleries Fall 2000. The crew used the Euromir-95 patch (below) as their official crew logo.

M I R EXPEDITION 21



From left to right: Yuri Onufriyenko, Yury Usachov

Launch Date : February 21, 1996 , 12:34 UTC
Launch Vehicle : SOYUZ TM 23

MIR Crew : *Cdr. Gidzenko (Russia), FE's Avdeyev (Russia), Thomas Reiter (Germany)*

Extended MIR Crew : Onufriyenko (Russia), Usachov (Russia)

Landing Crew : Gidzenko (Russia), Avdeyev (Russia), Thomas Reiter (Germany)
Landing Date : February 29, 1996 , 10:42 UTC
Landing Vehicle : SOYUZ TM 22

Extended MIR Crew : Shannon Lucid (USA)
- SPACE SHUTTLE , STS-76 , March 22, 1996 -

Summary :
The two cosmonauts performed five spacewalks. Onufriyenko was wearing red-striped DMA-25, which was used before four times by Tsibliev on EO-15, twice by Malenchenko on EO-16 and twice by Gidzenko on EO-20. Usachov was wearing blue striped DMA-26, used twice before by Thomas Reiter on EO-20.

SOYUZ TM 23

The official crew patch for the Russian Soyuz TM 23 mission, which delivered the EO-20 crew to the space station MIR.

Russian alternate design, produced by Eagle One Aerospace. The Russian version was seen as sticker attached to the EVA-hatch.

M I R EXPEDITION 22

From left to right: Aleksandr Kaleri, Valery Korzun, Claudie André-Deshays

Launch Date : August 17, 1996 , 13:18 UTC
Launch Vehicle : SOYUZ TM 24

MIR Crew : *Cdr. Onufriyenko (Russia), FE's Usachov (Russia), Shannon Lucid (USA)*

Extended MIR Crew : Korzun (Russia), Kaleri (Rus.), Claudie André-Deshays (France) (married: Claudie Haigneré)

Landing Crew : Onufriyenko (Russia), Usachov (Russia), Claudie André-Deshays (France)
Landing Date : September 2, 1996 , 7:42 UTC
Landing Vehicle : SOYUZ TM 23

Interchanged MIR Crew : Blaha (USA) replaced Shannon Lucid (USA) - SPACE SHUTTLE , STS-79 , Sep. 16, 1996 -

Summary :
The two cosmonauts performed two spacewalks:
Korzun was wearing red-striped Orlan DMA-27, used before three times by Vladimir Dezhurov om EO-18 and three times by Solovyev on EO-19.
Kaleri was wearing blue striped DMA-26, used twice before by Thomas Reiter on EO-20 and six times by Usachev on EO-22.

SOYUZ TM 24

The official crew patch (above) for the Russian Soyuz TM 24 mission and the patch (blow) for the MIR-EO-22 expedition.

M I R EXPEDITION 23

From left to right: *Aleksandr Lazutkin, Reinhold Ewald, Vasily Tsibliyev*

Interchanged MIR Crew : Linenger (USA) replaced Blaha (USA)
- SPACE SHUTTLE , STS-81 , Jan. 12, 1997 -

Launch Date : February 10, 1997 , 14:10 UTC
Launch Vehicle : SOYUZ TM 25

MIR Crew : *Cdr. Korzun, FE's Kaleri (Rus.), Linenger (USA)*

Extended MIR Crew : Tsibliyev (Russia), Lazutkin (Russia), Reinhold Ewald (Germany)

Landing Crew : Korzun (Russia), Kaleri (Russia), Reinhold Ewald (Germany)
Landing Date : March 2, 1997 , 6:46 UTC
Landing Vehicle : SOYUZ TM 24

Interchanged MIR Crew : Foale (USA) replaced Linenger (USA)
- SPACE SHUTTLE , STS-84 , May 15, 1997 -

Summary :
TM-25 was the 30th manned spacecraft mission (Soyuz/STS) to visit the MIR.

SOYUZ TM 25

The MIR-97 logo was adopted as the official mission patch and worn on the flight Sokols during launch and landing.

This mission not only had a "scientific" mission logo, but also a Soyuz crew patch. This probably was an innitiative of DLR, along the same lines as the patch for Klaus Dietrich Flade's Soyuz TM-14 mission. It was designed by an artist named Andora and consisted of three colorful circles, with children's drawings. It was the first TM-25 / EO-23 patches that was spotted - both the primary and backup crew were wearing it during training.

SOYUZ TM 25 / E O - 23

The Planeta Zemlja EO-23 patch

When the crew of Soyuz TM-25 faced the press a few days before their mission, Tsibliev and Lazutkin could be seen wearing another EO-23 patch, bearing the flags of the participating countries in this mission, but only their names. It was designed by a new group of Russian spaceflight enthusiasts: Planeta Zemlja. Unlike the Videokosmos/Novosti Kosmonavtiki group, they had succeeded in reaching an agreement with all the parties involved. Secret of their succes was the involvement of RKA Energia cosmonaut Feodor Yurchikin, himself an avid patch collector. Although the Planeta Zemlja patch became the official version, the Novosti Kosmonavtiki/Spaceview patch was much more known to collectors at the time because of Stewart Aviation's involvement. The Planeta Zemlja version was designed by Dmitriy "Dima" Shcherbinin and probably embroidered by the Vimpel company. It uses a black felt background instead of twill.

SOYUZ TM 25 / E O - 23

The two versions of the Aviation Patch Supplies EO-23 patch.

Then, of course, Novosti Kosmonavtiki also designed a patch for the entire EO-23 mission, which would also include US astronaut Jerry Linnenger. This patch, like the EO-20 and E0-21 patches, was designed by Oleg Shitikov. It had an oval form and a green background. It was faxed to Spaceview in Amsterdam and embroidered by Aviation Patch Supplies. When Jaap Terweij and Luc van den Abeelen of Spaceview received the patches, they immediately noticed something was wrong: the yellow of the German flag was embroidered in white. As a result, a second batch had to be made and the distribution of the patch was delayed. The second batch used a darker color yellow, which - unfortunatley - makes it hard to make out the names of the cosmonauts against the green background.

M I R EXPEDITION 24

From left to right: Anatoly Solovyev, Pavel Vinogradov

Launch Date : August 5, 1997 , 15:36 UTC
Launch Vehicle : SOYUZ TM 26

MIR Crew : *Cdr. Tsibliyev (Russia), FE's Lazutkin (Russia), Foale (USA)*

Extended MIR Crew : Solovyev (Russia), Vinogradov (Russia)

Landing Crew : Tsibliyev (Russia), Lazutkin (Russia)
Landing Date : August 14, 1997 , 12:17 UTC
Landing Vehicle : SOYUZ TM 25

Interchanged MIR Crew : Wolf (USA) replaced Foale (USA)
- SPACE SHUTTLE , STS-86 , Sep. 26, 1997 -

Summary :
The crew repaired the power cable and harness/connectors in the severely damaged SPEKTR module and restored much of the lost power; they also repaired and replaced the oxygen generators in MIR. The hole(s) in that module that caused total depressurization of the module could not be located during their spacewalk inside that module.

SOYUZ TM 26

The official crew patch for the Russian Soyuz TM 26 mission, which delivered the EO-24 crew to the space station MIR.

Patch for the MIR EO-24 expedition

M I R EXPEDITION 25

From left to right: Léopold Eyharts, Talgat Musabayev, Nikolai Budarin

Interchanged MIR Crew : Thomas (USA) replaced Wolf (USA)
- SPACE SHUTTLE , STS-89 , Jan. 22, 1998 -

Launch Date : January 29, 1998 , 16:34 UTC
Launch Vehicle : SOYUZ TM 27

MIR Crew : *Cdr. Solovyev (Russia), FE's Vinogradov (Rus.), Thomas (USA)*

Extended MIR Crew : Musabayev (Kasachstan), Budarin (Russia), Léopold Eyharts (France)

Landing Crew : Solovyev (Russia), Vinogradov (Russia), Léopold Eyharts (France)
Landing Date : February 19, 1998 , 9:11 UTC
Landing Vehicle : SOYUZ TM 26

Reduced MIR Crew : Thomas (USA) back to Earth (June 12, 1998)
- SPACE SHUTTLE , STS-91 , June 2, 1998 -

Summary :
The crew made five spacewalks. Musabayev was wearing Orlan M5 on the first three and Orlan M4 on the final two. Budarin was wearing Orlan M6 on all five EVA's.

SOYUZ TM 27

Being an international mission, the CNES-'Pegase' logo became the official patch.

The Planeta Zemlja patch

SOYUZ TM 27 / E O - 25

Again, this mission did have two crew patches:

that of Planeta Zemlja and that of Novosti Kosmonavtiki/Spaceview.

The Planeta Zemlja version, designed by Dmitriy Shcherbinin, again was the official patch, worn by the crew on their Earth-bound flightsuits.

The Novosti Kosmonavtiki/Spaceview patch was again designed by Luc van den Abeelen.
The logo with double headed Russian eagle, American bald eagle and white pegasus was first designed for TM-26/EO-24, but was switched with the TM-27/EO-25 logo when Leopold Eyharts' mission was delayed.

SOYUZ TM 27 / E O - 25

The Spaceview version with brown headed American Eagle.

The corrected version with white headed American eagle.

M I R EXPEDITION 26

From left to right: Yuri Baturin, Gennady Padalka, Sergei Avdeyev,

Launch Date : August 13, 1998 , 9:43 UTC
Launch Vehicle : SOYUZ TM 28

MIR Crew : *Cdr. Musabayev (Kasachstan), FE Budarin (Rus.)*

Extended MIR Crew : Padalka (Russia), Avdeyev (Russia),
Baturin (Russia, politician)

Landing Crew : Musabayev (Kasachstan), Budarin (Russia)
Baturin (Russia)
Landing Date : August 25, 1998 , 5:25 UTC
Landing Vehicle : SOYUZ TM 27

Summary :
Padalka and Avdeyev performed an EVA on September 15, 1998 (30min) into the module Spektr. They reconnected some cables for the solar panel steering mechanism. The cosmonauts had to connect a few cables to an interface for the steering of solar battery number 3 of Spektr. The second EVA occurred on November 11, 1998 (5h, 54m). The cosmonauts installed a meteoroid detector for the upcoming Leonid shower, hand-launched the Spoutnik-41 amateur-radio mini satellite and accomplished other 17 tasks.

SOYUZ TM 28

For the three previous MIR missions, a patch had been produced by both Planeta Zemlja and by Novosti Kosmonavtiki/Spaceview.
When the two met at a Russian air and space fair, they decided to co-operate and take turns in designing patches for the MIR missions.
Dmitriy Shcherbinin of Planeta Zemlja would design the artwork for Mir EO-26; Spaceview would take care of the embroidery.
As was the case with previous Spaceview patches, they turned to Aviation Patch Supplies.

Although the patch was official, it was only worn on the Earth-bound flightsuits.

M I R EXPEDITION 27

From left to right: Viktor Afanasyev, Jean-Pierre Haigneré, Ivan Bella
(The crew with their flight Sokols; Note that the TM-29 mission patch is not yet attached)

Launch Date : February 20, 1999 , 4:18 UTC
Launch Vehicle : SOYUZ TM 29

MIR Crew : *Cdr. Padalka (Russia), FE Avdeyev (Russia)*

Extended MIR Crew : Afanasyev (Russia), Jean-P. Haigneré (France), Ivan Bella (Slovakia)

Landing Crew : Padalka (Russia),Bella (Slovakia)
Landing Date : February 28, 1999 , 2:15 UTC
Landing Vehicle : SOYUZ TM 28

Landing Crew : Afanasyev (Russia), Avdeyev (Russia), Jean-Pierre Haigneré (France)
Landing Date : August 28, 1999 , 0:34 UTC
Landing Vehicle : SOYUZ TM 29

Summary :
Following an extended mission and three space walks, the last operational crew aboard MIR returned to earth on August 28, 1999.
The station was powered down and prepared for free drift mode.

SOYUZ TM 29

The Stefanik artwork.

The Soyuz TM-29 artwork.

SOYUZ TM 29 / E O - 27

With two foreign cosmonauts aboard, neither of the "scientific" mission logo's could be classified as 'official'.
It would not make sense to have Bella wear the Perseus logo or let Haignere fly with the Stefanik-emblem.
Maybe this is the reason why the Planeta Zemlja/Spaceview Operations patch ended up on the Sokol suits.

When Spaceview and Planeta Zemlja started their co-operation, it was agreed that the EO-26 patch would be designed by Planeta Zemlja and the EO-27 patch by Spaceview.
Since part of the EO-26 crew (Avdeev) remained on MIR, Spaceview designer Luc van den Abeelen decided to design a patch for Soyuz TM-29 instead.
It was produced by Aviation Patch Supplies (APS) and for the first time since Soyuz TM-19 (which had also been an APS patch - then under Spaceview/Novosti Kosmonavtiki co-operation), the crew was wearing a Soyuz-mission patch on their flight Sokols.

SOYUZ TM 29 / E O - 27

The EO-27 Presentation Patch Set

M I R EXPEDITION 28

From left to right: Sergei Zalyotin, Aleksandr Kaleri

Launch Date : April 4, 2000 , 5:01 UTC
Launch Vehicle : SOYUZ TM 30

MIR Crew : *- none -*

Extended MIR Crew : Cdr. Zalyotin (Russia), FE Kaleri (Russia)

Landing Crew : Zalyotin (Russia), Kaleri (Russia)
Landing Date : June 16, 2000 , 0:44 UTC
Landing Vehicle : SOYUZ TM 30

Summary :
Final, 39th human spaceflight to MIR space station.
The crew of the mission was sent by MirCorp, a privately funded company, to reactivate and repair the station for privatize the aging MIR space station. Further commercially funded missions beyond Soyuz TM-30 were originally planned to continue the restoration efforts of the then 14-year-old space station, but insufficient funding and investment ultimately led to the de-orbit of the station on March 23, 2001. Most of the unburned fragments fell into the South Pacific Ocean around 6:00 UTC.

SOYUZ TM 30

In the rotating Planeta Zemlja/Spaceview partnership, the TM-30/EO-28 patch was designed again by Dima of Planeta Zemlja. The original design includes the name of actor Steklov, who would fly to MIR to have some scenes of a movie filmed aboard. Steklov ultimately did not fly, so his name was removed from the final artwork. The patch was produced by the Vimpel-company and embroidered onto black felt.
The crew were not wearing the patch on their training flight suits until the final moments before launch. They were not wearing it at their press-conference, one day before the mission, but had it attached to their suits on launch day.
The crew did not wear the mission patch on their flight Sokols, but were wearing it in orbit on their Centaur-suits.

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APPENDICES

INTERCOSMOS

INTERCOSMOS

The Stewart Aviation souvenir Cassiopee patch
(Soyuz TM 24 / EO-22)

V K D
(E V A)

On their flight Sokols, TM-7 cosmonauts were wearing the Aragatz-mission patch on the right shoulder and a second generation, stylized MIR patch on the front. Chrétien was wearing the French seal ("Liberté, Egalité, Fraternité") on the left chest, a circular CNES-patch on the right chest and a French flag on his left shoulder.

Thomas Reiter and his flight Sokols

The ESA flag patch

Dr.Valeri Polyakov 's patch (Russia), showing Dr. Aybolit
(a character invented by Korney Chukovskiy's)

Personal patche of Norman E. Thagard (USA)

Personal patche of Ulf Merbold (Germany)

Personal patche of Thomas Reiter (Germany)

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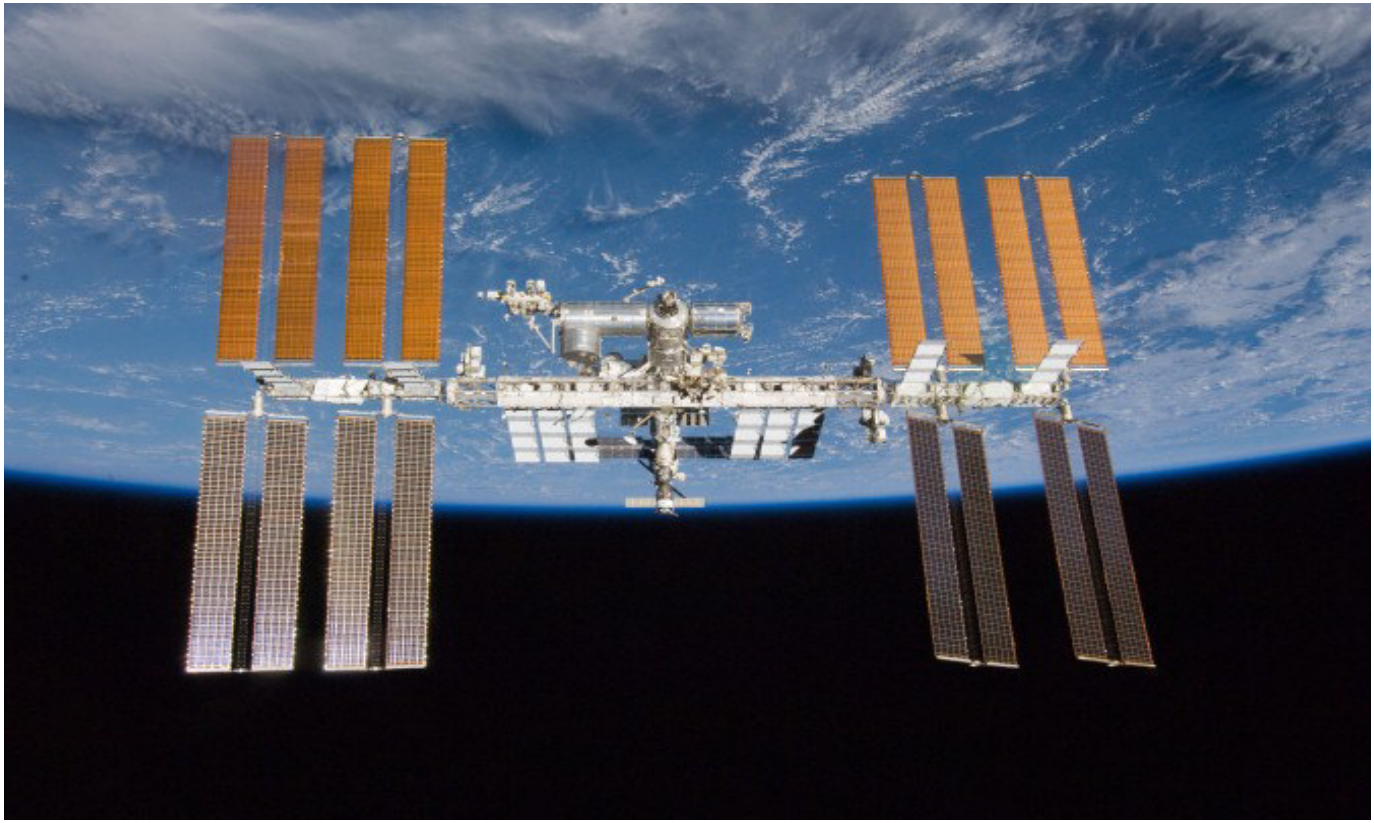

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СОЮЗ

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Human Space Flight

INTERNATIONAL PATCH HANDBOOK

SOYUZ / INTERNATIONAL SPACE STATION (ISS) - MISSION
1998 - 2017

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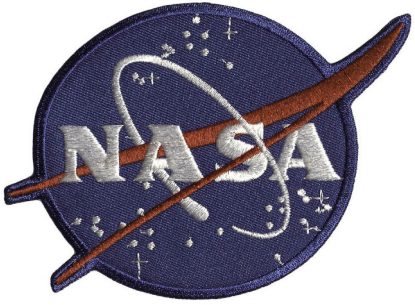
N A S A



National Aeronautics and Space Administration

R O S C O S M O S

Roscosmos State Corporation for Space Activities

E S A

European Space Agency

J A X A

Japan Aerospace Exploration Agency

PREFACE

From Alex Panchenko :

„Only Soyuz flight commanders along with crew members take decisions which design is going to be their flight emblem. Astronauts-guests on Soyuz vehicles bring their ideas and opinions, but do not play a key role in decision (same as Russian cosmonauts flown on Shuttle do not say which design of shuttle flight should be "official").
Designs of joint ISS Expeditions provided to NASA. But designs of Soyuz flights are not necessary provided to NASA in form of original flight emblems used. NASA doesn't take decisions or approvals which Soyuz emblems will be used.“

The **International Space Station (ISS)** was first launched into orbit on November 20, 1998. The first module, name Zarya, was launched aboard a Russian Proton rocket. The second module, called Unity, was launched aboard the Space Shuttle during mission STS-88. This was the beginning of the largest international cooperative space venture in history as it attached together in orbit the first two modules of the International Space Station.

I S S EXPEDITION 1

From the left are Flight Engineer (FE) Sergei Krikalev, Expedition One Commander (Cdr.) Bill Shepherd and Soyuz Commander Yuri Gidzenko.

Launch Date : October 31, 2000 , 07:53 UTC
Launch Vehicle : SOYUZ TM - 31

Current ISS Crew : - *none* -

Extended ISS Crew : Cdr. Shepherd (USA), Pilot Gidzenko (Russia)
Flight Engineer Krikalev (Russia)

Landing Date : March 21, 2001 , 07:31 UTC
Landing Vehicle : Space Shuttle , STS-102

Summary:
Activation of the Zvezda Service Module systems; Equipment installation, Maintenance of the Station functionality; Support of Progress M1-4, Progress M-44 dockings and Space Shuttle flights 4A, 5A, 5A.1; Progress and Space Shuttle unloading; Support of Progress M1-4 undocking; Implementation of the Research and Experimental Program; Crew handover to ISS-2 expedition.

SOYUZ TM - 31

After the initial major milestones for the ISS program since begin of orbital assembly in 1998, which included the first crewed logistics/supply flight of a space shuttle in May/June 1999, the arrival of the first long-duration station crew of U.S. Commander William Shepherd and Russian Pilot/Flight Engineers Yuri Gidzenko and Sergei Krikalev in November 2000 (Soyuz-TM-31) and the installation of the first set of U.S. solar array wings in December 2000, build-up and early operations of the permanently crewed station continued through the years. At the time of the flight, a question about the patch comming up from „collectSpace“ :
„...I have an ISS Expedition 1 crew patch, but I am looking for info on the patch that was for the Soyuz spacecraft and not the expedition patch ?“
Answers:
„... to the best of what I know there is no Soyuz-TM-31 crew patch, only the ISS Exp-1 patch.“
„… it never was a soyuz mission patch.“
„… Countdown Creations was selling shirts with the logo. Also, the plaque is hanging in mission control Houston. I doubt it was ever approved by the Soyuz commander. Probably drawn up by someone at NASA JSC.“

ISS VISITING CREW 1

From left to right: Dennis Tito, Talgat A. Musabaev, Yury M. Baturin.

Launch Date : April 28, 2001 , 07:37 UTC
Launch Vehicl : SOYUZ TM - 32

Current ISS Crew : *Cdr. Shepherd (USA), Pilot Gidzenko (Russia) Flight Engineer Krikalev (Russia)*

Extended ISS Crew : Musabaev (Russia), Baturin (Russia) **and** Space flight participant Dennis Tito (USA)

Landing Date : May 06, 2001 , 06:51 UTC
Landing Vehicle : SOYUZ TM - 31

Summary:
Crew of Talgat Mysabayev, Yuri Baturin and Dennis Tito launched on April 28, 2001, delivering the fresh Soyuz TM-32 lifeboat to the International Space Station (with Expedition-2 under way). They returned to Earth in the 'expired' Soyuz TM-31 on May 6, 2001.

SOYUZ TM - 32

On August 14, 2000, space tourist Dennis Tito had been officially introduced in Star City.
In November 2000 Tito was transfered to the first ISS Taxi mission.
The final crew of Musabayev, Baturin and Tito was formerly approved on December 28, 2000
The contract with Tito was formerly signed on January 30, 2001.
On March 19, 2001, NASA refused to allow Tito to start training with the cosmonauts at the Johnson Space Center !

I S S EXPEDITION 1

Commander William Shepherd and Flight Engineers Yuri Gidzenko and Sergei Krikalev were the first residents of the International Space Station. Their mission lasted from
October 2000 (Soyuz-TM-31) to March 2001 (STS-102).

The first International Space Station crew patch is a simplified graphic of the station complex when fully completed. The station is seen with solar arrays turned forward. The last names of the Expedition One crew, Soyuz pilot Yuri Gidzenko, flight engineer Sergei Krikalev, and expedition commander William (Bill) Shepherd, appear under the station symbol.

I S S EXPEDITION 2

Commander Yury Usachev and Flight Engineers James Voss and Susan Helms occupied the International Space Station for 148 days. They began their mission in March 2001 (STS-102) and returned to Earth in August 2001 (STS-105).

The ISS Expedition Two patch depicts the Space Station as it appears during the time the second crew will be on board. The Station flying over the Earth represents the overall reason for having a space station: to benefit the world through scientific research and international cooperation in space. The number 2 is for the second expedition and is enclosed in the Cyrillic MKS and Latin ISS which are the respective Russian and English abbreviations for the International Space Station. The United States and Russian flags show the nationalities of the crew indicating the joint nature of the program. When asked about the stars in the background, a crew spokesman said „ they represent the thousands of space workers throughout the ISS partnership who have contributed to the successful construction of our International Space Station."

ISS VISITING CREW 2

From left to right: K.M. Kozeev, V.M.Afanasiev, C. Haignere

SOYUZ TM - 33

Launch Date : October 21, 2001 , 08:59 UTC
Launch Vehicle : SOYUZ TM - 33

Current ISS Crew : *Cdr. Culbertson Jr. (USA), FE's Dezhurov (Russia), Tyurin (Russia)*

Extended ISS Crew : Afanasiev (Russia), Claudie Haignere (France), Kozeev (Russia)

Landing Date : October 31, 2001 , 04:59 UTC
Landing Vehicle : SOYUZ TM - 32

Summary :
Planned replacement of Souyz TM-32 which has been functioning as a crew rescue vehicle within ISS since April 30, 2001; conducting on-board the space station a work package under the program of the visit: experiments under "Russian program" and research program „ Andromeda “ under a contract with French national center for space research; providing maintenance support for ISS-3 crew mission; return of Visiting Crew 2 on-board Soyuz TM-32.

In the ‘Andromède’ mission, ESA astronaut Claudie Haigneré (France) was the first European female astronaut to travel to the International Space Station (ISS) in October 2001. Haigneré stayed on the ISS for 8 days during her 10-day Soyuz TM-33 flight. With her were Russians Victor Afanasiev and Konstantin Kozeev.

I S S EXPEDITION 3

The Expedition Three crew members astronaut Frank L. Culbertson, Jr., commander, and cosmonauts Vladimir N. Dezhurov and Mikhail Tyurin, flight engineers had the following to say about the insignia for their scheduled mission aboard the International Space Station (ISS): “The book of space history turns from the chapter written onboard the Russian MIR Station and the U.S. Space Shuttle to the next new chapter, one that will be written on the blank pages of the future by space explorers working for the benefit of the entire world. The space walker signifies the human element of this endeavor. The star representing the members of the third expedition, and the entire multi-national Space Station building team, streaks into the dawning era of cooperative space exploration, represented by the image of the International Space Station as it nears completion.”

I S S EXPEDITION 4

The International Space Station (ISS) Expedition Four crew patch has an overall diamond shape, showing the "diamond in the rough" configuration of the Station during expedition four. The red hexagonal shape with stylized American and Russian flags represents the cross-sectional view of the S0 truss segment, which the crew will attach to the U.S. Lab Destiny. The persistent Sun shining on the Earth and Station represents the constant challenges that the crew and ground support team will face every day while operating the International Space Station, while shedding new light through daily research. The green portion of the Earth represents the fourth color in the visible spectrum and the black void of space represents humankind's constant quest to explore the unknown.

ISS VISITING CREW 3

From left to right: M. Shuttleworth, Y.P. Gidzenko, R. Vittori

Launch Date : April 25, 2002 , 06:26 UTC
Launch Vehicle : SOYUZ TM - 34

Current ISS Crew : *Cdr. Onufrienko (Russia), FE's Walz (USA), Bursch (USA)*

Extended ISS Crew : Gidzenko (Russia), Roberto Vittori (Italy)
Space flight participant M. Shuttleworth (SA)

Landing Date : May 05, 2002 , 03:51 UTC
Landing Vehicle : SOYUZ TM - 33

Summary:
Scheduled replacement of Soyuz TM-33 spacecraft which has been serving as a rescue vehicle for ISS since October 23, 2001; conducting work on-board the space station under the visiting expedition program: experiments under the Russian program, and experiments under two commercial programs, Italian Marco Polo program and a Cosmonaut M.Shuttleworth Program; addressing the ISS crew logistical tasks; returning Visiting Crew 3 to Earth in the descent vehicle of the Soyuz TM-33 spacecraft.

SOYUZ TM - 34

South African (SA) cosmonaut Mark Shuttleworth.

The "First African in Space" Patch. (D. Fowler)

ISS VISITING CREW 4

From left to right: Y.V. Lonchakov, S.V. Zaletin, F. De Winne.

Launch Date : October 30, 2002 , 03:11 UTC
Launch Vehicle : SOYUZ TMA - 1

Current ISS Crew : *Cdr. Korzun (Russia), FE's Peggy Whitson (USA), Treshchev (Russia)*

Extended ISS Crew : Zaletin (Russia), Frank De Winne (Belgium), Lonchakov (Russia)

Landing Date : November 11, 2002 , 00:04 UTC
Landing Vehicle : SOYUZ TM - 34

Summary:
Planned changeover of Soyuz TM-34, which has been acting as a crew rescue vehicle as part of the ISS since 27 April 2002; implementation of experiments under the Russian program and experiments under Odissea commercial program onboard the ISS; solution of ISS crew flight technical support issues; VC-4 return in the Soyuz TM-34 spacecraft descent capsule.

SOYUZ TMA - 1

The TMA-1 patch with the crew's names was embroidered by Stewart Aviation for collectors. Also, Spaceview (who had been working with Dima Shcherbinin on the final MIR missions) had the patches embroidered, but this was more than a year after the flight.
In an interview with De Winne and Lazutkin, they told that they considered the Odissea patch as their official logo.
Thus, the Soyuz TMA-1 patch (below) must be considered a commemorative or souvenir patch (ENERGIA Soyuz Mission Spacecraft changeover logo)

I S S EXPEDITION 5

The International Space Station (ISS) Expedition Five patch depicts the Station in its completed configuration and represents the vision of mankind's first step as a permanent human presence in space. The United States and Russian flags are joined together in a Roman numeral V to represent both the nationalities of the crew and the fifth crew to live aboard the ISS. Crew members' names are shown in the border of this patch. This increment encompasses a new phase in growth for the Station, with three Shuttle crews delivering critical components and building blocks to the ISS. To signify the participation of each crew member, the Shuttle is docked to the Station beneath a constellation of 17 stars symbolizing all those visiting and living aboard Station during this increment.

I S S EXPEDITION 6

The International Space Station (ISS) Expedition 6 crew patch depicts the station orbiting the Earth on its mission of international cooperation and scientific research. The Earth is placed in the center of the patch to emphasize that work conducted aboard this orbiting laboratory is intended to improve life on our home planet. The shape of the Space Station's orbit symbolizes the role that experience gained from ISS will have on future exploration of our solar system and beyond. The American and Russian flags encircling the Earth represent the native countries of the Expedition 6 crew members, which are just two of the many participant countries contributing to the ISS and committed to the peaceful exploration of space.

I S S EXPEDITION 7

From left to right: Yuri Malenchenko, Ed Lu

Launch Date : April 26, 2003 , 03:54 UTC
Launch Vehicle : SOYUZ TMA - 2

Current ISS Crew : *Cdr. Bowersox (USA), FE's Pettit (USA), Budarin (Russia)*

Extended ISS Crew : Malenchenko (Russia), Ed Lu (USA)

Landing Crew : Bowersox (USA), Pettit (USA), Budarin (Russia)
Landing Date : May 4, 2003 , 02:04 UTC
Landing Vehicle : SOYUZ TMA - 1

Summary:
Handling operations to undock Soyuz / Progress spacecrafts; handling operations to dock Soyuz / Progress spacecrafts; unloading of Soyuz / Progress spacecrafts; support of Station functionality; performance of the science and application research program and experiments, as well as contract based commercial activities;
shift handover to Expedition ISS-8 crew.

SOYUZ TMA - 2

On April 1, 2003, or exactly two months after the loss of Columbia, NASA officially confirmed that had been known for weeks a veteran Russian cosmonaut Yuri Malenchenko (Col., Russian Air Force) and veteran NASA astronaut Ed Lu have been named as the primary crew for the planned April 26, 2003, launch of the Russian Soyuz TMA-2 spacecraft to the International Space Station.

(ENERGIA Soyuz Mission Crew and Spacecraft changeover logo)

I S S EXPEDITION 8

From left to right: M. Foale, A. Kaleri, P. Duque

Launch Date : October 18, 2003 , 05:38 UTC
Launch Vehicle : SOYUZ TMA - 3

Current ISS Crew : *Cdr. Malenchenko (Russia), FE Ed Lu (USA)*

Extended ISS Crew : Foale (USA), Kaleri (Russia), **and**
Visiting Crew - 5 : Pedro Duque (Spain)

Landing Crew : Malenchenko (Russia), Ed Lu (USA), Pedro Duque (Spain)
Landing Date : October 28, 2003 , 02:40UTC
Landing Vehicle : SOYUZ TMA - 2

Summary:
Handling operations to undock Soyuz / Progress spacecrafts; handling operations to dock Soyuz / Progress spacecrafts; unloading of Soyuz / Progress spacecrafts; conduct of extravehicular activity (EVA): the first egress from ISS Russian Segment (ISS RS); performance of the program of experiments under the SSM Servantes Project during the VC-5 period; shift handover to ISS-9 expedition and return of ISS-8 crew.

SOYUZ TMA - 3

The Soyuz TMA-3 patch was designed by Dutch Spaceview artist Luc van den Abeelen. The patch was embroidered by Aviation Patch Supplies (APS) in the Netherlands.
ESA astronaut Pedro Duque (ES) flew on Soyuz TMA-3 in October 2003, and stayed on the International Space Station for 8 days of his 10-day 'Cervantes' mission. With him were Alexander Kaleri and Michael Foale, the ISS Expedition 8 crew.

I S S EXPEDITION 7

The International Space Station (ISS) Expedition Seven patch consists of two elliptical orbits which evoke the histories of the two space programs from which the crew is drawn. The Russian and American flags are intersecting, representing the peaceful cooperation of the many countries contributing to the ISS. Two stars indicate the Station's goals of contributing to life on Earth through science and commerce.

I S S EXPEDITION 8

This emblem represents the eighth long-duration expedition to the International Space Station. The banner encircling the Earth, as a stylized figure 8, combines the flags of the partner nations represented by the crew. The International Space Station is portrayed above the Earth in its assembly complete configuration. The names of the two crewmembers, Michael Foale and Alexander Kaleri, are depicted in the border.

I S S EXPEDITION 9

From left to right: M. Fincke, G. Padalka, A. Kuipers.

Launch Date : April 19, 2004 , 3:190 UTC
Launch Vehicle : SOYUZ TMA - 4

Current ISS Crew : *Cdr. Foale (USA), FE Kaleri (Russia)*

Extended ISS Crew : Padalka (Russia), Fincke (USA) **and**
Visiting Crew – 6 : Andre Kuipers (The Netherlands)

Landing Crew : Foale (USA), Kaleri (Russia),
Andre Kuipers (The Netherlands)
Landing Date : April 30, 2004 , 0:12 UTC
Landing Vehicle : SOYUZ TMA - 3

Summary:
Operational support for undocking of Soyuz / Progress spacecrafts; operational support for docking of Soyuz / Progress spacecrafts; extravehicular activities: two EVA's on the ISS RS; performance of the experimental program under Delta DSM Project during VC-6; crew handover to Increment ISS-10.

SOYUZ TMA - 4

The Soyuz TMA-4 patch was designed by Dutch Spaceview artist Luc van den Abeelen. The patch was embroidered by Aviation Patch Supplies (APS) in the Netherlands. Luc about the design:"I wanted this patch to express the pride of manned spaceflight, and get some of the 'feel' of the old Apollo patches. The design features the Soyuz TMA-4 spacecraft majestically flying over the blue Earth. The sunrise, symbol of optimism and future, outlines the silhouet of the International Space Station. There are two groups of stars; 4 to the left and 3 to the right of the sun. They form 43, as it will be in the week of the 43rd anniversary of Yuri Gagarin's first manned flight that the TMA-4 will be launched. Together, the seven stars also represent the perished crew of Columbia. The border is devided by three stars, for the three crewmembers, and represent the flags of Russia (white/blue/red), the USA and the Netherlands (both red/white/blue). Finally, the crewmembers' names are devided into expedition 9 crew Fincke and Padalka (in yellow) and short-stay astronaut Kuipers (in orange, which is the national colour of the Netherlands)."

I S S EXPEDITION 10

From left to right: Y. Shargin, S. Sharipov, L. Chiao.

Launch Date : October 14, 2004 , 3:06 UTC
Launch Vehicl : SOYUZ TMA - 5

Current ISS Crew : *Cdr. Padalka (Russia), FE Fincke (USA)*

Extended ISS Crew : Chiao (USA), Sharipov (Russia) **and**
Visiting Crew – 7 : Shargin (Russia)

Landing Crew : Padalka (Russia), Fincke (USA), Shargin (Russia)
Landing Date : October 24, 2004 , 0:36 UTC
Landing Vehicle : SOYUZ TM - 4

Summary:
Operational support for undocking of Soyuz / Progress spacecrafts; operational support for docking of Soyuz / Progress spacecrafts; performance of extravehicular activity: two EVA's on the ISS RS; performance of the science and application research program and experiments, as well as contract based commercial activities; crew handover to Increment ISS-11.

SOYUZ TMA - 5

LEFT Patch : This Soyuz TMA-5 patch was designed by Marc Jacobs : "I did some designs for Exp-10 and had send them to Dr. Chiao, but he wrote me back that although he liked the designs they already had a patch. Several weeks went by and then Dr. Chiao send me an email out of the blue with regard to designing a TMA-5 patch and I was very excited. On August 24, 2004 Leroy Chiao made it clear that Marc's patch would be the official TMA-5 patch: "Marc - Now that Yuri Shargin is pretty much official, I think that you can consider your patch design as the official one for the TMA-5 Soyuz!"

RIGHT Patch : This Soyuz TMA-5 patch was designed by Alex Panchenko : "I've started design works of patches for Soyuz TMA-5 (ISS-10 flight) back in July 2004, and later presented them for approval to Soyuz commander S.Sharipov. During design work with Soyuz TMA-5 patch my idea was to present Soyuz panels as symbolic flags of Russia and United States, and base of design is a window view outside. Crew names are in the same order as their actual seats inside Soyuz. Commander S.Sharipov in center, L.Chiao on the left from commander and Y.Shargin on the right side."

I S S EXPEDITION 9

This emblem represents the Ninth Expedition to the ISS. The Soyuz rocket and letter "X" combine into the Roman numeral IX. The "X" evokes Exploration, which is at the core of the indivisible partnership of the two space pioneering nations. Research aboard ISS will lead to human exploration of the Moon and Mars. This pursuit is strengthened by the common memory of the astronauts and cosmonauts who gave their lives in this valiant endeavor. Their stars form the leading edge of the wings of the eagle spirit that embodies Human Space Flight. The Astronaut symbol is flanked by the Expedition 9 crew names leaning together, with a "9" stylized as the plume of their rocket. The baton of great discovery is passed to the crew of the spaceship advancing to their orbital outpost.

I S S EXPEDITION 10

The Expedition 10 patch uses simple symbolism to describe the mission. The large Roman numeral "X," formed by the American and Russian flags, symbolizes the joint nature of this mission, as well as the fact that this flight is the 10th mission to stay on the International Space Station (ISS). The current configuration of the ISS is next to the name of the ISS Commander, while the Soyuz vehicle is placed next to the name of the Soyuz Commander. The single star and the black background signify this is a space mission.

I S S EXPEDITION 11

From left to right: R. Vittori, S. Krikalev, J. Phillips.

Launch Date : April 15, 2005 , 0:46 UTC
Launch Vehicle : SOYUZ TMA - 6

Current ISS Crew : *Cdr. Chiao (USA). FE Sharipov (Russia)*

Extended ISS Crew : Krikalev (Russia), Phillips USA) **and**
Visiting Crew - 8: Roberto Vittori (Italy)

Landing Crew : Chiao (USA). Sharipov (Russia), Roberto Vittori (Italy)
Landing Date : April 24, 2005 , 22:08 UTC
Landing Vehicle : SOYUZ TMA - 5

Summary:
Support of the Space Station functionality; performance of extravehicular activity: two EVA's, one EVA on the ISS US orbital segment (ISS USOS), one EVA on the ISS RS; performance of the science and application research program and experiments, as well as contract based commercial activities; implementation of the Experimental Program under the ISM "Eneide" Project during VC-8; crew handover to Increment ISS-12.

SOYUZ TMA - 6

Right Patch :
From Alex Panchenko, the desinger of the patch:
„Diamond shape Soyuz TMA-6 patch made for Russia-USA-Italy team launching to the ISS in April, 2005 is a result of my joint work with Sergei Krikalev. Sergei had final stage of preparation in Houston and one of last weekends spent on Pacific Coast in California. For Sergei new Soyuz flight would be Sixth space mission and we wanted a patch to be in Diamond shape, as Soviet/Russian Academies graduation badges. Same time we wanted design to be very simple and basic, without complicate ideas and symbols. It took around 15 minutes for couple basic drawings and it was done.“

Left Patch :
In the two o'clock position of the patch, there are two (Russian) letters and the number 8. What does that signify? This is the eighth Soyuz exchange. This constitutes a taxi mission too, but only Vittori is a 'taxi' member. ESA astronaut Roberto Vittori (Italy) became the first European astronaut to visit the ISS twice when he flew on the Soyuz TMA-6 flight in April 2005. He stayed on the International Space Station for nearly 8 days during his 10-day 'Eneide' mission. With him were fellow crewmembers Sergei Krikalev (Russia) and John Phillips (USA).

I S S EXPEDITION 12

From left to right: G. Olsen, V. Tokarev, W. McArthur

Launch Date : October 1, 2005 , 3:54 UTC
Launch Vehicle : SOYUZ TMA - 7

Current ISS Crew : *Cdr. Krikalev (Russia), FE Phillips USA)*

Extended ISS Crew : Tokarev (Russia), McArthur (USA) **and**
Visiting Crew -9 : Space flight participant Greg Olsen (USA)

Landing Crew : Krikalev (Russia), Phillips USA)
Greg Olsen (USA)
Landing Date : October 11, 2005 , 1:09 UTC
Landing Vehicle : SOYUZ TMA - 6

Summary:
Performance of extravehicular activity: i.e. one US egress (EVA) on the ISS USOS and one Russian egress (EVA) on the ISS RS; support of the Space Station functionality; performance of the science and application research program and experiment, as well as contract based commercial activities; implementation of Gregory Olsen's utilization program onboard the ISS, as well as ESA life science experiments during VC-9;
crew handover to Increment ISS-13.

SOYUZ TMA - 7

In the fall of 2005, Dr. Greg Olsen will undertake the adventure of a lifetime by visiting the International Space Station for seven days, traveling over three million miles in space and completing over one hundred orbits of the Earth. To highlight this great endeavor, Space Adventures has used Dr. Olsen's initials „G.O." in his mission name, „Go to Orbit."

I S S EXPEDITION 11

When the Expedition 11 crew -- NASA astronaut John Phillips and Russian cosmonaut Sergei Krikalev -- arrive at the International Space Station in April, they'll be wearing this crew patch emphasizing the importance of international cooperation. The ISS image shows the configuration of the orbiting Station at the start of the expedition, with docked Soyuz and Progress vehicles and the huge American solar panels. The names of Commander Krikalev and Flight Engineer Phillips appear at the margin.
The crew, expected to be in orbit when the Shuttle Discovery (STS-114) visits on its Return to Flight mission, describes the patch this way: "The beauty of our home planet and the vivid contrasts of the space environment are shown by the blue and green Earth with the Space Station orbiting overhead, and by the bright stars, dark sky, and dazzling sun."

I S S EXPEDITION 12

This is the insignia for Expedition 12. Crewmembers are astronaut William S. McArthur, commander and NASA Space Station Science Officer, and Russia's Federal Space Agency cosmonaut Valery I. Tokarev, flight engineer and Soyuz commander.

I S S EXPEDITION 13

From left to right: M. Pontes, P.V. Vinogradov, J. Williams

Launch Date : March 30, 2006 , 2:30 UTC
Launch Vehicle : SOYUZ TMA - 8

Current ISS Crew : *Cdr. McArthur (USA), FE Tokarev (Russia)*

Extended ISS Crew : Vinogradov (Russia), Williams (USA) **and**
Visiting Crew – 10 : Marcos Pontes (Brazilia)

Landing Crew : McArthur (USA), Tokarev (Russia),
Marcos Pontes (Brazilia)
Landing Date : April 8, 2006 , 23:47 UTC
Landing Vehicle : SOYUZ TMA - 7

Summary:
Operational support for docking / undocking and loading / unloading of Soyuz / Progress spacecrafts; performance of extravehicular activity: i.e. one US egress (EVA) on the ISS USOS and two Russian egresses (EVA's) on the ISS RS; implementation of the scientific research program onboard the ISS under BSM Centario project during the VC-10 time;
crew handover to Increment ISS-14.

SOYUZ TMA - 8

TMA-8 patch made by Alex Panchenko could be seen during the preflight crew conference in Houston. Panchenko pointed out that this would be the version that would go on the Sokol suits. To make things worse for collectors, this new Soyuz patch came in three different colors. Panchenko: „Soyuz TMA-8 patch is my joint design with flight commander Pavel Vinogradov. This simple and colorful design presents National flags of Russia, United States of America and Brazil. Along with crew it was decided to make flight patch personal for each crew member. Soyuz commander Pavel Vinogradov will use Red line patch. Flight engineer astronaut Jeff Williams will have Blue line patch. First Brazilian cosmonaut Marcos Pontes will have Silver line patch." The TMA-8 flightpatches were produced by Shanghai Dingsheng Fabric Co.

I S S EXPEDITION 14

From left to right: A. Ansari, M.V. Tyurin, M. Lopez-Alegria

Launch Date : September 18, 2006 , 4:08 UTC
Launch Vehicle : SOYUZ TMA - 9

Current ISS Crew : *Cdr. Vinogradov (Russia),*
FE's Sunita Williams (USA), Th. Reiter (Germany)

Extended ISS Crew : Lopez-Alegria (USA) , Tyurin (Russia). **and**
Visiting Crew – 11 : Space flight participant Anousheh Ansari (USA)

Landing Crew : Vinogradov (Russia), Williams (USA),
Anousheh Ansari (USA)
Landing Date : September 29, 2006 , 1:13 UTC
Landing Vehicle : SOYUZ TMA - 8

Summary:
Operational support for docking / undocking and loading / unloading of Soyuz / Progress spacecrafts; performance of extravehicular activity: i.e. three US egresses (EVA's) on the ISS USOS and two Russian egresses (EVA's) on the ISS RS; crew handover to Increment ISS-15.

SOYUZ TMA - 9

Simple design of Soyuz TMA-9 patch includes the following elements: The docking target on the ISS to which the Soyuz will align itself, element of symbol of 6th Faculty of MAI, which gratuated by Soyuz TMA-9 pilot-commander Mikhail Tyurin, three cosmic stars according three Soyuz flight Team members (M.Tyurin, M.Lopez-Alegria both ISS-14 crew and spaceflight participant Anousheh Ansari). Soyuz TMA-9 emblem also includes Luna and Mars.

Red border patch is for Thurin and blue border patch for other Soyuz crew members.

I S S EXPEDITION 13

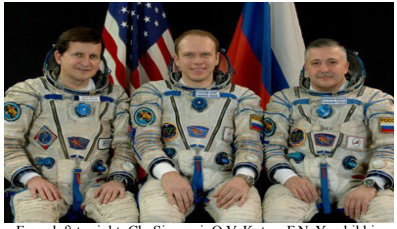
NASA has approved the Expedition 13 - 3 man crew emblem design adding - the name Reiter in the lower part of the emblem. Thomas Reiter is joining the crew and will spend six months on the International Space Station. This brings the crew to three for the first time in three years. Other crew members already on station are Jeff Williams and Pavel Vinogradov.
The three-man, three-flag version is the "official" insignia, the three-man, two flag version is the "official" patch.

I S S EXPEDITION 14

This emblem embodies the past, present, and future of human space exploration. The Roman numeral XIV suspended above the Earth against the black background of space symbolizes the fourteenth expeditionary mission to the International Space Station (ISS), MKC. Elements of this symbol merge into a unified trajectory destined for the Moon, Mars, and beyond, much as science and operations aboard the ISS today will pave the way for future missions to our celestial neighbors. The five stars honor the astronauts and cosmonauts of missions Apollo 1, Soyuz 1, Soyuz 11, Challenger, and Columbia, who gave their lives in the pursuit of knowledge and discovery.

The Exp-14 crew patch was designed by Michael E. Lopez-Alegria, He said this about the patch: "We wanted to go back to the earlier way of designing space patches. Simple and no names".

I S S EXPEDITION 15



From left to right: Ch. Simonyi, O.V. Kotov, F.N. Yurchikhin

Launch Date : April 7, 2007 , 17:34 UTC
Launch Vehicle : SOYUZ TMA - 10

Current ISS Crew : *Cdr. Lopez-Alegria (USA),*
FE's Sunita Williams (USA), Tyurin (Russia)

Extended ISS Crew : Yurchikhin (Russia), Kotov (Russia), **and**
Visiting Crew – 12 : Space flight participant Charles Simonyi (USA)

Landing Crew : Lopez-Alegria (USA), Tyurin (Russia),
Charles Simonyi (USA)
Landing Date : April 21, 2007 , 12:31 UTC
Landing Vehicle : SOYUZ TMA - 9

Summary:
Support of the Space Station functionality; performance of extravehicular activity: i.e. one US egress (EVA) on the ISS USOS and two Russian egresses (EVA's) on the ISS RS; performance of the science and application research program and experiments, as well as contract based commercial activities; implementation of the utilization program for Charles Simonyi onboard the ISS, as well as performance of ESA life science experiments during the VC-12 time; crew handover to Increment ISS-16.

SOYUZ TMA - 10

The Soyuz TMA-10 patch is made by Alex Panchenko."These patches I've produced per request of Oleg Kotov. He wants to use them in flight. By some reason Oleg Kotov asked to remove Stars, which just made design too heavy..."

I S S EXPEDITION 16

From left to right: Sheikh Muszaphar Shukor, Yuri Malenchenko, Peggy Whitson

Launch Date : October 10, 2007 , 13:23 UTC
Launch Vehicl : SOYUZ TMA - 11

Current ISS Crew : *Cdr. Yurchikhin (Russia), FE's Kotov (Russia), Anderson (USA)*

Extended ISS Crew : Malenchenko (Russia), Peggy Whitson (USA) **and**
Visiting Crew – 13 : Space flight participant Sheikh Muszaphar Shukor Al Masrie (Malaysia)

Landing Crew : Yurchikhin (Russia), Kotov (Russia), Sheikh Muszaphar Shukor Al Masrie (Malaysia)
Landing Date : October 21, 2007 , 10:36 UTC
Landing Vehicle : SOYUZ TMA - 10

Summary:
Performance of extravehicular activity: i.e. three US egresses (EVA's) on the ISS USOS and one Russian egress (EVA) on the ISS RS; implementation of the experimental program under Angkasa MSM Project onboard the ISS during the VC-13 time; crew handover to Increment ISS-17.

SOYUZ TMA - 11

This is the Malenchenko patch - red border - .

Whitson had it with blue border and Shukor with silver border.

I S S EXPEDITION 15

The operational teamwork between human space flight controllers and the on-orbit crew take center stage in this emblem. Against a backdrop familiar to all flight controllers, past and present, independent of any nationality, the fifteenth expedition to the ISS is represented in Roman numeral form as part of the ground track traces emblazoned on the Mercator projection of the home planet Earth. The ISS, shown in its fully operational, assembly complete configuration, unfurls and then reunites the flags of this Russian and American crew in a show of our continuing international cooperation. Golden spheres placed strategically on the ground track near the flight control centers of the United States and Russia serve to symbolize both the joint efforts from each nation's team of flight controllers and the shuttle and Soyuz crew vehicles in their chase orbit as they rendezvous with the ISS. A rising sun provides a classic touch to the emblem signifying the perpetual nature of manned space flight operations and their origin in these two space-faring nations. During the Expedition 15 media briefing on December 13, 2006 at Johnson Space Center, commander Fyodor Yurchikhin described his crew's patch : ….....

"This was my idea and then my crew helped me design everything for this patch. For me and for us, the Expedition 15, it is not only our crew. Expedition 15 is all people who work with this program, very nice, very complex-able program. I think that one of greatest view that everybody can understand, this is our map and our orbits. We use this in Russian MCC or in American, in Houston MCC. We use like this view in orbit, we have world map in our computers or in Russian segment, we have the program Sigma. Because a very important question everybody is „Where we are?“ yes, of course, „Who we are?“. „Expedition 15 where we are?“ in orbit. An orbit continues and our program continues, and now our orbit is Expedition 15. You can see this in our patch, yes? Two vehicles are important. One of this is station. The second is Soyuz spacecraft or shuttle or ATV or Progress, like these vehicles here. And to that, its vehicles and MCC you can understand that the dot is on the Houston Mission Control Center and on the Moscow Control Center. This is important. Of course, all our names. Maybe, and its official, we hope we can see everybody. The sun, everybody understands what is the sun. The sun is very important to us. Everyday we can see the sun, we are glad that our life continues and our flight continues, our orbits continue.“

I S S EXPEDITION 16

This patch commemorates the sixteenth expeditionary mission to the International Space Station (ISS). The design represents the conjunction of two unique astronomical events: a transit of the ISS across the surface of a full moon, and a nearly complete annular eclipse of the sun. The ISS is shown in its complete configuration, symbolizing the role of this expedition in preparing for the arrival and commissioning of international partner modules and components. The ISS transit across the moon highlights its role in developing the techniques and innovations critical to enable long-duration expeditions to the lunar surface and beyond.

I S S EXPEDITION 17

From left to right: Yi So Yeon, Sergey Volkov, Oleg Kononenko

Launch Date : April 8, 2008 , 11:17 UTC
Launch Vehicle : SOYUZ TMA - 12

Current ISS Crew : *Cdr. Peggy Whitson (USA),*
FE's Malenchenko (Russia), Reisman (USA)

Extended ISS Crew : Volkov (Russia), Kononenko (Russia) **and**
Visiting Crew – 14 : Space flight participant Yi So Yeon (South Korea)

Landing Crew : Malenchenko (Russia), Peggy Whitson (USA),
Yi So Yeon (South Korea)
Landing Date : April 19, 2008 , 5:06 UTC
Landing Vehicle : SOYUZ TMA - 11

Summary:
Performance of extravehicular activity (EVA), i.e. one the ISS RS; performance of reboost operations using ATV1 (ESA spacecraft) thrusters; maintenance of the station functionality; performance of the science and application research program and experiments as well as contract based commercial activities; implementation of Korea Astronaut Program (KAP) onboard the ISS during the VC-14 time; crew handover to Increment ISS-18.

SOYUZ TMA - 12

Two 'official' versions of the Soyuz TMA 12 crewpatch; on the left as worn on the crew's Sokol spacesuits; a 100% embroidered patch. On the right the version that was handed out by Roscosmos at Baikonur on the day of the launch, which seems to have a felt background. Note the dotted white outline of the Soyuz and its solar panels and the '1' that is of a different form.

A smaller version of the right patch, was flown on the onboard suits.
It is 9,0 cm instead of 9,8 cm. Only three patches were flown.

I S S EXPEDITION 18

From left to right: Richard Garriott, Yury Lonchakov, Michael Fincke

Launch Date : October 12, 2008 , 7:01 UTC
Launch Vehicle : SOYUZ TMA - 13

Current ISS Crew : *Cdr. Volkov (Russia), FE's Kononenko (Russia), Chamitoff (USA)*

Extended ISS Crew : Lonchakov (Russia), Fincke (USA). **and**
Visiting Crew – 15 : Space flight participant Richard Garriott (USA)

Landing Crew : Volkov (Russia), Kononenko (Russia), Richard Garriott (USA)
Landing Date : October 23, 2008 , 3:37 UTC
Landing Vehicle : SOYUZ TMA - 12

Summary:
Performance of extravehicular activity: one Russian EVA to the ISS RS; the station maintenance; implementation of the program of scientific-applied research and experiments, as well as contract commercial activities; implementation of the program of experiments under the GTA project aboard the station during VC-15 expedition; crew handover to the ISS-19 expedition.

SOYUZ TMA - 13

The 'red' Soyuz TMA-13 patch, produced by Richard Garriot. This design was worn by the crew, although the Roscosmos version is the 'official' crew patch for this mission. The original idea and artwork came from Benjamin Berezin, final graphic design came from Richard Garriott and Keith Dana.
Astronaut Mike Fincke's statemend on July 2008 about our patch description is as follows : "From ancient Titans lifting worlds on their shoulders to today's space explorers elevating Humanity's appreciation of our own world, legends are meant to inspire people with imagination, creativity, courage, and strength. The 100th Flight of Soyuz exemplifies all that and more with a new-generation Soyuz TMA-13 servicing the ISS and advancing science for peace on our planet. The names of the cosmonauts and astronaut crew are bordering the Soyuz capsule outlined in Russian national colors, while the vehicle is speeding upwards from its Baikonur launch pad. The 18 stars surround Soyuz Commander Yuri Lonchakov, Expedition 18 Commander Mike Fincke, and private space explorer Richard Garriott for the number of ISS expeditions to date. The crimson red of the name belt pays tribute to the achievement of the original Soyuz 1 and the first Soyuz cosmonaut Vladimir Komarov.“

I S S EXPEDITION 17

The Expedition 17 patch is meant to celebrate current human achievements in space as well as symbolize the future potential for continuing exploration. The Earth, represented at the bottom of the patch, is the base from which all space exploration activities initiate. The International Space Station, shown in low Earth orbit, illustrates the current level of space operations. The arrow and star point outwards, away from the Earth, toward the wider universe indicating the direction of future activities as human beings build on what has already been accomplished. The flags, representing the home countries of the crew members, Russia and the United States, are touching, highlighting the cooperative nature of the space program and symbolizing the merger of science and technical knowledge of these two experienced spacefaring nations.

Note :
AB Embleme made the Expedition 17 patches with three and four names for NASA, but these will not be stocked and therefore will not be available for the public. Looks like that only the patch with no names will be available.

Later on :
The four name crew patch has been rejected by the NASA astronaut office.

Note :
The undercase „e“ in Kononenko's name – on the shown patches - is not correct. The correct letter must be „E“ (see SOYUZ TMA 12 patches).

These two crewpatches were a special request from members of the „C's forum“ who wanted a patch with names.
The patches were made by AB Emblem.

I S S EXPEDITION 18

Fincke (USA) , Lonchakov (Russia) , Chamitoff (USA) , Sandra Magnus (USA) , Wakata (Japan)

This emblem represents the 18th expedition to the International Space Station. Featured prominently is the Roman numeral XVIII. The “X” evokes exploration, which is at the core of the indivisible cooperation of the International Space Station partners. “V” is for victory and for the five space agencies in the ISS Program. “III” stands for the hope that this crew will help evolve the station from supporting the last three-person crew to crews of six explorers and researchers. The moon, sun and stars symbolize the efforts of the entire space station team, which will lead to the human exploration of the moon, our solar system and beyond.

I S S EXPEDITION 19 / 20

From left to right: Charles Simonyi, Gennady Padalka, Michael Barratt

Launch Date : March 26, 2009 , 11:50 UTC
Launch Vehicle : SOYUZ TMA - 14

Current ISS Crew : *Cdr. Fincke (USA), FE's Lonchakov (Russia), Kōichi Wakata (Japan)*

Extended ISS Crew : Padalka (Russia), Barratt (USA)
Visiting Crew – 16 : Space flight participant Charles Simonyi (USA)

Landing Crew : Lonchakov (Russia), Fincke (USA), Charles Simonyi (USA)
Landing Date : April 8, 2009 , 7:15 UTC
Landing Vehicle : SOYUZ TMA - 13

Summary:
Support of the Space Station functionality; operational support for loading and undocking of Soyuz / Progress spacecrafts; performance of the science and application research program and experiments; implementation of the utilization program and life science experiments for a space flight participant of visiting crew VC-16.

SOYUZ TMA - 14

Roscosmos announced an international competition for children under age 15: 'Let's design a logo for Soyuz TMA-14 crew'. The winning design would provide the basis for the crew patch, which would receive official status by the approval of the head of Roscosmos. This would be only the second time a Russian crewpatch had such a status, following the Soyuz TMA-13 logo, although this was never worn by the cosmonauts. The winner was Anna Chibiskova, age 12, of Moscow. Her design of two hands, protectively cradling the Earth was considered the best by mission commander Padalka and Roscosmos head Perminov. In a quick round of designs, with additonal input from Roscosmos, Spaceview designer Luc van den Abeelen composed the patch, using a bright blue border to represent the Earth's atmosphere. Six stars symbolize the six-person crew that would man the ISS for the first time; and also the three cosmonauts being launched and coming down on the spacecraft. Jorge Cartes from Spain assisted with a high resolution version of Luc's artwork for printing requirements.
The creation of patches for back-up crews became established practice.

I S S EXPEDITION 20 / 21

From left to right: R. Thirsk, R. Romanenko, F. De Winne

Launch Date : May 27, 2009 , 10:35 UTC
Vehicle : SOYUZ TMA - 15

Extended ISS Crew : Romanenko (Russia), FE's Thirsk (Canada), De Winne (Belgium)

Landing Date : December 1, 2009 , 7:16 UTC

Start of long-duration six-member Crew onboard ISS

ISS Crew after Soyuz docking :
Cdr. Padalka (Russia), FE's Barratt (USA), Kopra (USA), Romanenko (Russia), Thirsk (Canada), De Winne (Belgium)

Summary:
Support of operation on loading / undocking of Progress and docking of the Space Shuttle / Progress spacecrafts; support of operations on HTV (JAXA spacecraft) docking to the American segment; performance of two EVA's by Russian crewmembers to the ISS RS; implementation of the program of research and applied activities and experiments.

SOYUZ TMA - 15

An angel, painted by 15-year old Yura Menkevich of the Kemerovskaya region in West Siberia, Russia, was chosen by Russian spacecraft commander Roman Romanenko as the central element for his Soyuz TMA-15 patch. Similar to the Soyuz capsule he shares with Frank De Winne of Belgium and Robert Thirsk of Canada, the angel is graciously sailing towards the International Space Station. The ISS orbit is symbolized by a red circle, composed of the outer bands of the flags of the crew's home countries. The orbit extends into one of the blue bands of the Earth, emphasizing the strong connection between the space program and our home planet. The two groups of three stars symbolize a safe launch and a safe landing. Together, the six stars also commemorate that beginning with this flight, a permanent six man crew will be present aboard the ISS.

I S S EXPEDITION 19

Expedition 19 marks the final planned period of three-person occupancy before increasing the crew size to six, and it occurs in the final stages of International Space Station assembly. The patch emphasizes Earth, one of the major focuses of attention and study from the orbital research outpost.
The design is stylized to highlight the beauty of the home planet and the station orbiting it, next to the sun, now the unquestioned brightest star in the sky as viewed from Earth.

I S S EXPEDITION 20

The Expedition 20 patch symbolizes a new era in space exploration with the first six-person crew living and working aboard the space station, and it represents the significance of the station to the exploration goals of NASA and its international partners. The six gold stars signify the men and women of the crew.
The astronaut symbol extends from the base of the patch to the star at the top to represent the international team, both on the ground and in orbit, who are working together to further our knowledge of living and working in space.
The space station in the foreground represents where we are now and the important role it is playing toward meeting our exploration goals.
The knowledge and expertise developed from these advancements will enable us to leave low Earth orbit once again for the new challenges of establishing a permanent presence on the Moon and traveling on to Mars and other destinations.
The blue, gray and red arcs represent our exploration goals as symbols of Earth, the Moon and Mars.

I S S EXPEDITION 21 / 22

From left to right: Guy Laliberte, Maksim Suraev, Jeffry Williams

Launch Date : September 30, 2009 , 7:14 UTC
Launch Vehicle : SOYUZ TMA - 16
Extended ISS Crew : Suraev (Russia), FE's Williams (USA) **and**
Visiting Crew – 17 : Space flight participant Guy Laliberte (Canada)
Landing Crew : Padalka (Russia), Barratt (USA),
Guy Laliberte (Canada))
Landing Date : October 11, 2009 , 4:31 UTC
Landing Vehicle : SOYUZ TMA - 14
Landing Crew : Suraev (Russia), Williams (USA)
Landing Date : March 18, 2010 , 11:24 UTC
Landing Vehicle : SOYUZ TMA - 16

ISS Crew after Soyuz docking :

Cdr. Padalka (Russia), FE's Barratt (USA), Nicole Stott (USA), De Winne (Belgium), Romanenko (Russia), Thirsk (Canada), Williams (USA), Suraev (Russia), Guy Laliberte (Canada)

ISS Crew - 21 : Cdr. De Winne (Belgium), FE's Nicole Stott (USA), Romanenko (Russia), Thirsk (Canada), Williams (USA), Suraev (Russia).

SOYUZ TMA - 16

The Soyuz TMA-16 patch was based on artwork provided by 14-year old Anastasia Mestyashova from the Orenburg region in Russia. Central elements are a cosmonaut figure and three large stars, one for each launching crewmember: American astronaut Williams (dark blue star), Space Adventures participant Guy Laliberte (light blue star) and their Russian spacecraft commander Surayev (red star). The flags of the cosmonauts' home countries - Russia, the United States and Canada - are shown at the top of the shield. In the upper left corner, simple shapes symbolize the building blocks of the universe and life on Earh. The 'cradle of mankind', from which the mission originates, is depicted by a growing plant, gradually transforming into a fiery rocket trail and a spacecraft, bound for the ISS. The ISS is drawn like a gold star, with 9 rays for each crewmember present when the Soyuz TMA-16 has arrived. The colors of the 6 stars and 3 shapes in the upper left corner, also repr. the crew make up. Red for the three Russians, dark blue for the three Americans, light blue for the two Canadians and gold for soon-to-be ISS commander De Winne from Belgium. The plant and rocket trail together form a '16', the Soyuz TMA mission number. The Earth in the background has the typical grid pattern seen in earlier Soviet and Russian space logo's, heralding all heroes of the Vostok, Woshkod and Soyuz flights of the past. The surnames of Williams and Laliberte are companied by the NASA and One Drop Foundation logo's respectively. In the same area, a small red star and small blue star are included for the future, safe return of Surayev and Williams, who together will land in the Soyuz TMA-16 spacecraft in March 2010. The final artwork was designed by Erik van der Hoorn with input from commander Max Surayev.

I S S EXPEDITION 22 / 23

From left to right: Timothy Creamer, Oleg Kotov, Soichi Noguchi

Launch Date : December 20, 2009 , 21:52 UTC
Launch Vehicle : SOYUZ TMA - 17

Extended ISS Crew : Kotov (Russia), FE's Creamer (USA), Noguchi (Japan)

Landing Date : June 2, 2010 , 3:24 UTC

ISS Crew - 22 : Cdr. Williams (USA), FE's Suraev (Russia), Kotov (Russia), Creamer (USA), Noguchi (Jap.)

Summary:
Operational support for loading / unloading and docking / undocking of Soyuz / Progress spacecrafts; support of the Space Station functionality; implementation of two EVA's on the ISS RS; performance of the science and application research program and experiments.

SOYUZ TMA - 17

Roscosmos announced Nastya Mestyashova (14) as the winner of the Soyuz TMA-16 contest. Luc van den Abeelen was tasked with the final design.
In the final stages of designing, Kotov worked directly with the digital artwork himself to fine-tune some of the elements. The final art for the TMA-17 patch was ready on September 5, 2009 and after some final color adjustments for printing purposes, approved by Roscosmos head Anatoli Perminov on September 16, 2009.
The design consists of a girl sitting on a hill with the moon in the background looking out towards an astronaut drawn like a constellation, which the space station in the distant background. The names of the astronauts/cosmonauts Kotov, Noguchi and Creamer are naturally shown with their flags (Russia, Japan and USA respectively).

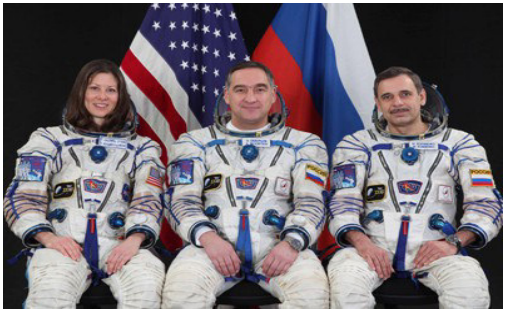
I S S EXPEDITION 21

The central element of the patch is inspired by a fractal of six, symbolizing the teamwork of the six-person crew. From the basic element of one person, together six people form a much more complex and multifaceted entity, toward the infinity of the universe. The patch shows children, on Earth in the bright sun, as our future and the reason we explore. The Soyuz and shuttle are the vehicles that enable human space exploration today, while the ISS is leading to our next goals, the moon and Mars. The patch shape has six tips, geometrically sound yet reminiscent of a leaf, representing symmetry and ecological harmony, and the six stars in deep space represent the current crew and future exploration crews.

I S S EXPEDITION 22

The 22nd Expedition to the International Space Station is dedicated to the final stages of assembly and the transition to full use as an orbiting laboratory. The sun, providing power and life support to the space station, shines through one of the solar arrays as the station orbits above Earth. The oceans and atmosphere, providing life support to Earth, are shown in all their beauty. The moon hovers in the distance as the goal of the next era of exploration. The six stars illustrate the increased capability of the crew complement. In the border are the national flags of the crew members, as well as their surnames in their native languages.

I S S EXPEDITION 23 / 24



From left to right: Tracy Caldwell-Dyson, Aleksandr Skvortsov, Mikhail Kornienko

Launch Date : April 2, 2010 , 4:04 UTC
Vehicle : SOYUZ TMA - 18

Extended ISS Crew : Skvortsov (Russia), Kornienko (Russia), Tracy Caldwell-Dyson (USA)

Landing Date : September 25, 2010 , 5:23 UTC

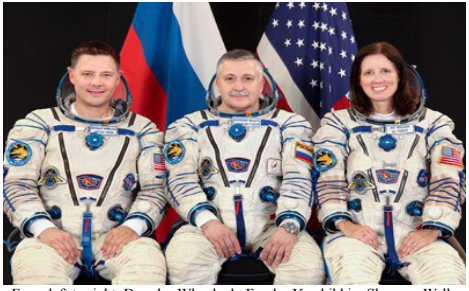
ISS Crew - 23 : Cdr. Kotov (Russia), FE's Creamer (USA), Noguch (Japan), Skvortsov (Russia), Kornienko (Rus.), Tracy Caldwell-Dyson (USA)

Summary:
Operational support for loading / unloading and docking / undocking of Soyuz / Progress spacecrafts; operational support for docking of Space Shuttle orbiters during missions 19A and ULF4 – the STS-132 mission deliver the Mini Research Module Rassvet (MRM1) to ISS RS; unloading of MRM1; support of the Space Station functionality; performance of the science and application research program and experiments.

SOYUZ TMA - 18

The two official crew patches for the Soyuz TMA-18 mission,
left: Sokol version 105 x 97 mm, right: standard version 100 x 93 mm.
By tradition, it incorporated an element designed through a children's competition. For this mission, a drawing by Nastya Berezutski, 9 years old, from Kurchatov was used. The patch design features three cosmonauts, clad in their Sokol pressure suits, ready for their months long stint on board the ISS. Their Soyuz craft flying over the Earth, depicted in the white and blue hues of clouds and oceans, while three stars signify three people orbiting Earth.
The patch was composed by Spacepatches designer Luc van den Abeelen.
The Sokols have to go through more rigourous testing than the other onboard clothing and need to be completed (including the patches) at an earlier stage. To ensure the crew would not fly without their logo, a slightly different version of the patch was sent ahead to the Zvezda factory. A small number of these patches had been available before the main batch was ready. This resulted in a slighly larger version of the patch, eventually worn on launch day. The smaller, 'standard' version was worn during training and was worn on ISS clothing.

I S S EXPEDITION 24 / 25



From left to right: Douglas Wheelock, Fyodor Yurchikhin, Shannon Walker.

Launch Date : June 15, 2010 , 21:35 UTC
Vehicle : SOYUZ TMA - 19

Extended ISS Crew : Yurchikhin (Russia), Wheelock (USA), Shannon Walker (USA)

Landing Date : November 26, 2010 , 4:46 UTC

ISS Crew - 24 : Cdr. Skvortsov (Russia), FE's Kornienko (Rus.), Tracy Caldwell-Dyson (USA), Wheelock (USA) Yurchikhin (Russia), Shannon Walker (USA)

Summary:
Operational support for loading / unloading and docking / undocking of Soyuz / Progress spacecrafts; implementation of extravehicular activity: one Russian EVA on the ISS RS; support of the Space Station functionality; performance of the science and application research program and experiments.

SOYUZ TMA - 19

The design is based on a painting by 7-year Jevgeni Emelyanov from the Republic of Marij-El, as well as Yurchikhin's earlier Soyuz TMA-10 emblem. It depicts the TMA-19 spacecraft arriving at the ISS for docking, backdropped by a stylized image of the Mount Olympus -- Yurchikhin's call sign.

I S S EXPEDITION 23

The focal point of the Expedition XXIII emblem illustrates the beautiful planet Earth in the black expanse of space. The ISS is shown traveling in its orbit around Earth. The ISS orbital path flies through the XXIII to show that this increment is building upon the missions that have gone on before and laying the groundwork for future missions. This illustrates the work being performed aboard the orbiting complex that will lead the way to eventual missions to the moon, Mars and beyond. The mission designation uses Roman numerals to illustrate the home nations of the crew, which are also represented by their national flags. The two stars represent the two teams that make up this expedition crew. Based on the orientation of the U.S. flag, the Russian flag was reproduced on the first official artwork reversed. Rather than appearing as it should (from left to right) white, blue and red.
With the permission of the crew, here is the name version of the patch:
This version of the patch will not be official until after the crew launches.

I S S EXPEDITION 24

Science and exploration are the corner-stones of NASA's mission onboard the space station. This emblem signifies the dawn of a new era in our program's history. With each new expedition, as we approach assembly complete, our focus shifts toward the research nature of this world-class facility. Prominently placed in the foreground, the station silhouette leads the horizon. Each ray of the sun represents the five international partner organizations that encompass this cooperative program. Expedition 24 is one of the first missions expanding to a crew of six. These crews, symbolized here as stars arranged in two groups of three, will launch on Soyuz vehicles. The unbroken flight track symbolizes our continuous human presence in space, representing all who have and will dedicate themselves as crew and citizens of the space station.

I S S EXPEDITION 25 / 26

From left to right: Scott Kelly, Alexander Kalery, Oleg Scripochka

Launch Date : October 7, 2010 , 23:10 UTC
Vehicle : SOYUZ TMA - 01 M

Extended ISS Crew : Kalery (Russia), S. Kelly (USA), Scripochka (Russia)

Landing Date : March 16, 2011 , 7:54 UTC

ISS Crew - 25 : Cdr. Wheelock (USA), FE's Yurchikhin (Rus.), Shannon Walker (USA), S. Kelly (USA), Kalery (Russia), Scripochka (Russia)

Summary:
Operational support for loading / unloading and docking / undocking of Soyuz / Progress spacecrafts; performance of two EVA sessions by Russian crewmembers to the ISS RS; support of the Space Station functionality; performance of the science and application research program and experiments.

SOYUZ TMA - 01 M

Designed by Erik van der Hoorn, of Sneek, the Netherlands. Partially based on art provided by 12-year-old Alexander Turovsky of Michurinsk, Russia, a photo by Tom Wallace from Illinois and input by commander Kalery. Produced by Spacepatches.nl / Emblemen.net. The Soyuz TMA-01M patch shows the new "digital" spacecraft, made up of binary numbers (0's and 1's) against the deep black of space. The numbers translate into "STMA-01M". The spacecraft is accompanied by a crane. Together, the Soyuz and the bird are forming an 'X' shape, the symbol for test flight, to emphasize that this is the first flight of a new type of Soyuz vehicle. The 'technical' shape of the patch and the orange border also refer to this. Both spacecraft and crane are flying towards an orbital sunrise. The nine rays of the Sun are symbolical for the individual members of the Expedition 25 and 26 crews that Kalery, Kelly and Skripochka (including themselves) wil be a part of. Three large stars are depicted for the Soyuz crew, with two of the stars near Kelly's name emphasizing the possible joint flight with his identical twin brother Mark (which did not take place). The crew's names are embroidered in red on white, the colors of Energiya. Both Kalery and Skripochka are members of the Energiya cosmonaut group.

I S S EXPEDITION 26 / 27

From left to right: Catherine Coleman, Dmitriy Kondratiev, Paolo Nespoli

Launch Date : December 15, 2010 , 19:09 UTC
Vehicle : SOYUZ TMA - 20

Extended ISS Crew : Kondratiev (Russia), Nespoli (Italy), Catherine Coleman (USA)

Landing Date : May 24, 2011 , 2:26 UTC

ISS Crew - 26 : Cdr. S. Kelly (USA), FE's Kalery (Russia), Scripochka (Russia), Kondratiev (Russia), Nespoli (Italy), Catherine Coleman (USA)

Summary:
Operational support for loading / unloading and docking / undocking of Soyuz / Progress spacecrafts; performance of two EVA sessions by Russian crewmembers to the ISS RS; support of the Space Station functionality; Performance of the science and application research program and experiments.

SOYUZ TMA - 20

Dmitri Kondratyev personally wrote down the description of this patch:
„The manned space program of Russia does not stop in the near earth orbit. It is directed toward the future of humanity, which will unconditionally master the distant boundaries of space up to the constellations of Ursa Major, Southern Cross and the centuries-old lighthouse of humanity, the Pole star. The constellations of Ursa Major and southern cross lie at the different hemispheres of the Earth. Despite the fact that Earth itself does not make it possible to simultaneously see constellations of both hemispheres, we will investigate our neighbourhood everywhere, where this will be possibly. At the basis of emblem lies the drawing of Ursa Major by the girl from Murmansk region of Russia, Marina Korolenko. This emblem is visible from all corners of Russia. Let all children (of Russia) see this constellation, believe that to them also it is necessary to be the original discoverers of the new expanses of space. We believe that is the future of humanity as united population of planet the Earth, after the mastery of the expanses of boundless space."

I S S EXPEDITION 25

The mission patch design for the 25th Expedition to the International Space Station pays tribute to the rich history of innovation and bold engineering in the quest for knowledge, exploration and discovery in space. The patch highlights the symbolic passing of the torch to the space station, as the vehicle that will carry us into the future of space exploration. The Space Shuttle Program emblem is the foundation of the patch and forms the Greek letter "Alpha" with a new dawn breaking at the center, symbolizing a new vision for space exploration. The „Alpha" symbol is overlaid by the Greek letter "Omega", paying tribute to the culmination of the Space Shuttle Program. The mission designation "25" is shown centered at the bottom of the patch, symbolizing the point in time when the space shuttle, the workhorse of the station assembly process, will make its final visit to the ISS. Between the "25" and the Earth crescent, the orbiter is shown returning to Earth on its final journey, during the Expedition 25 mission. Above Earth and the breaking dawn, the station takes center-stage, completed and fully equipped to carry us beyond this new dawn to new voyages and discoveries. The orbit connecting the station and Earth is drawn in the colors of the United States and Russian flags; paying tribute to the blended heritage of the crew. The two largest stars in the field represent the arrival and departure of the crews in separate Russian Soyuz vehicles. The six stars in the field represent the six crew members. The International Space Station abbreviation "ISS" and "MKC" – in English and Russian, respectively – flank the mission number designation, and the names of the crew members in their native languages border the ISS symbol.

I S S EXPEDITION 26

In the foreground of the patch, the International Space Station is prominently displayed to acknowledge the efforts of the entire International Space Station team – both the crews who have built and operated it, and the team of scientists, engineers, and support personnel on Earth who have provided a foundation for each successful mission. Their efforts and accomplishments have demonstrated the space station's capabilities as a technology test bed and a science laboratory, as well as a path to the human exploration of our solar system and beyond.
The space station is shown with ESA's ATV-2, the Johannes Kepler spacecraft, docked to resupply it with experiments, food, water, and fuel for Expedition 26 and beyond.This Expedition 26 patch represents the teamwork among the international partners - USA, Russia, Japan, Canada and ESA - and the ongoing commitment from each partner to build, improve, and use the station.
Prominently displayed in the background is our home planet, Earth - the focus of much of our exploration and research on our outpost in space. The two stars symbolize two Soyuz spacecraft, each one carrying a three-member crew, who for four months will work and live together aboard the station as Expedition 26.
The patch shows the crew members' names, and it's framed with the flags of their countries of origin - United States, Russia, and Italy.

I S S EXPEDITION 27 / 28

From left to right: Ronald Garan, Aleksandr Samokutyaev, Andrei Borisenko

Launch Date : April 4, 2011 , 22:18 UTC
Vehicle : SOYUZ TMA - 21 „Juri Gagarin“

Extended ISS Crew : Borisenko (Russia), Samokutyaev (Russia), Garan (USA)

Landing Date : September 16, 2011 , 3:59 UTC

ISS Crew - 27 : Cdr. Kondratiev (Russia), FE's Nespoli (Italy), Catherine Coleman (USA), Borisenko (Russia), Samokutyaev (Russia), Garan (USA)

Summary:
Operational support for loading / unloading and docking / undocking of Soyuz - / Progress spacecraft; operational support for docking of the crew of Space Shuttle ULF6 mission; operational support for loading and undocking of ATV2 vehicle; support of the Space Station functionality; performance of the science and application research program and experiments.

SOYUZ TMA - 21

The official crew patch for the Soyuz TMA-21 mission, designed by Luc van den Abeelen and Marciel Santos Kayle (12) from French Guiana. Luc first proposed a design at the end of March 2010. It was circular in shape, had a red border and already included an Earth with Yuri Gagarin's face visible in the cloud pattern, as well as a '50'. At the request of Roscosmos PR, an alternative design was made in the shape of a Vostok. Design was finalized in May 2010. Four different prototypes were produced in August and September 2010, ahead of formal approval, to determine final colors. Patch was approved by Roscosmos on November 9, 2010 and finalized that same month. Published by Roscosmos on their website on December 27, 2010. For the first time, pins were also produced.

I S S EXPEDITION 28 / 29

From left to right: Michael Fossum, Sergei Volkov, Satoshi Furukawa

Launch Date : June 7, 2011 , 20:13 UTC
Vehicle : SOYUZ TMA - 02 M

Extended ISS Crew : Fossum (USA), Volkov (Russia), Furukawa (Japan)

Landing Date : November 22, 2011 , 2:25 UTC

ISS Crew - 28 : Cdr. Borisenko (Russia), FE's Samokutyaev (Russia), Garan (USA), Fossum (USA), Volkov (Russia), Furukawa (Jap.)

Summary:
Operational support for loading / unloading and docking / undocking of Soyuz - / Progress spacecraft; performance of one EVA from the ISS RS; support of the Space Station functionality; performance of the science and application research program and experiments.

SOYUZ TMA - 02 M

The official crew patch for the Soyuz TMA-02M mission,designed by Luc van den Abeelen and Kati Ikramov. The spacecraft in the patch was composed using pictures of a docked Soyuz and an approaching Progress. The children's element by Kati Ikramov (8) was also added. The design was approved by Roscosmos on November 9, 2010. Following some very minor color corrections, a go for production was given on December 20, 2010 and the first batch of patches arrived in Moscow in early February 2011. The artwork was published by Roscosmos on March 11, 2011, ahead of the crew's press conference in Houston ten days later. The rocket art by Kati Ikramov was later also used in Mike Fossum's personal patch by Tim Gagnon and Jorge Cartes.

I S S EXPEDITION 27

The Expedition 27 patch depicts the ISS prominently orbiting Earth, continuing its mission for science, technology and education. The space station is an ever-present reminder of the cooperation between the United States, Russia, Japan, Canada and the European Space Agency − and of the scientific, technical and cultural achievements that have resulted from that unique teamwork. The station is shown in its completed status with the latest addition of the Alpha Magnetic Spectrometer and with two resupply vehicles docked at each end of the station. The Southern Cross Constellation is also shown in the foreground and its five stars, along with the sun, symbolize the six international crew members who live and work on the space station. The Southern Cross is one of the smallest modern constellations, and also one of the most distinctive. It has cultural significance all over the world and inspires teams to push the boundaries of their worlds, both in space and on the ground.

I S S EXPEDITION 28

Honoring 50 Years of Human Space Flight:
In the foreground of the Expedition 28 patch, the ISS is prominently displayed to acknowledge the efforts of the entire ISS team − both the crews who have assembled and operated it, and the team of scientists, engineers and support personnel on Earth who have provided a foundation for each successful mission. Their efforts and accomplishments have demonstrated the space station's capabilities as a technology test bed and a science laboratory, as well as a path to the human exploration of our solar system and beyond. This Expedition 28 patch represents the teamwork among the international partners −USA, Russia, Japan, Canada and the ESA − and the ongoing commitment from each partner to build, improve and use the space station. Prominently displayed in the background is our home planet, Earth − the focus of much of our exploration and research on our outpost in space. Also prominently displayed in the background is the moon. The moon is included in the design to stress the importance of our planet's closest neighbor to the future of our world. Expedition 28 is scheduled to occur during the timeframe of the 50th anniversary of both the first human in space, Russian cosmonaut Yuri Gagarin, and the first American in space, astronaut Alan Shepard. To acknowledge the significant milestone of 50 years of human spaceflight, the names "Гагарин" and "Shepard" as well as "50 Years" are included in the patch design.

I S S EXPEDITION 29 / 30

From left to right: Daniel Burbank, Anton Shkaplerov, Anatoliy Ivanishin

Launch Date : November 14, 2011 , 4:14 UTC
Vehicle : SOYUZ TMA - 22

Extended ISS Crew : Burbank (USA), Shkaplerov (Russia), Ivanishin (Russia)

Landing Date : April 27, 2012 , 11:45 UTC

ISS Crew – 29 : Cdr. Fossum (USA), FE's Volkov (Russia), Furukawa (Japan), Burbank (USA), Shkaplerov (Russia), Ivanishin (Russia)

Summary:
Operational support for loading / unloading and docking / undocking of Soyuz - / Progress spacecraft; performance of one EVA from the ISS RS; support of the Space Station functionality; performance of the science and application research program and experiments.

SOYUZ TMA - 22

The official crew patch for the Soyuz TMA-22 mission, designed by cosmonaut Mark Serov, 5-year old Maxim Baikalov of Abakan [Republic of Khakassia, Russia] and Erik van der Hoorn.
Central element in the patch is the VSK-4 periscope sight as used aboard the Soyuz spacecraft. The Earth, the Soyuz spacecraft and the cosmonaut - / astronaut names where added. The final artwork was composed by Erik van der Hoorn, who also proposed to use a purple border as a reference to the children's drawing.

I S S EXPEDITION 30 / 31

From left to right: Donald Pettit, Oleg Kononenko, Andre Kuipers

Launch Date : December 21, 2011 , 13:16 UTC
Vehicle : SOYUZ TMA - 03 M

Extended ISS Crew : Kononenko (Russia), Kuipers (The Netherl.), Pettit (USA)

Landing Date : July 1, 2012 , 8:15 UTC

ISS Crew - 30 : Cdr. Burbank (USA), FE's Shkaplerov (Rus.), Ivanishin (Russia), Kononenko (Russia), Kuipers (The Netherlands), Pettit (USA)

Summary:
Operational support for loading / unloading and docking / undocking of Soyuz - / Progress spacecraft; operational support for docking of ATV3 vehicle; performance of one EVA from the ISS RS; support of the Space Station functionality; performance of the science and application research program and experiments.

SOYUZ TMA - 03 M

The official crew patch for the Soyuz TMA-03M mission, designed by Luc van den Abeelen and Alena Gerasimova (11) from Petrozavodsk, Russia. The patch shows three cosmonaut figures, joining hands as is traditional for Soyuz crews, at the moment of successfully reaching orbit. The name of the spaceship is depicted in large Cyrillic characters and contains some play with letters, some doubling as both a letter and a number. Also, the silhouette of the Soyuz spaceship is part of one of the letters. Snaking through the design is the constellation of Scorpio, with its mayor star Antares larger than the rest, as Antares is the callsign of the commander of Soyuz TMA-03M. The three cosmonaut figures and the constellation Scorpio was credited, by the 11-year old Alena Gerasimova from Petrozavodsk, Russia.

I S S EXPEDITION 29

On the Expedition 29 patch, the ISS is shown following the path of the historic 18th century explorer, Captain James Cook, and his ship, Endeavour. During Cook's three main voyages, he explored and mapped major portions of the oceans and coastlines under the flight path of the ISS and added immeasurably to the body of knowledge of that time. As the ISS sails a stardust trail – following the spirit of Endeavour sailing toward the dark unknown and new discoveries – it enlightens Earth below. Through the centuries, the quest for new discoveries has been a significant element of the human character, inspiring us to endure hardships and separation to be part of a mission which is greater than any individual. A spokesman for the crew stated, "The crew of Expedition 29 is proud to continue the journey in this greatest of all human endeavors."

I S S EXPEDITION 30

The ISS Program is completing the transition from assembly to full utilization as humankind celebrates the golden anniversary of human space exploration. In recognition of these milestones and especially of the contribution of those whose dedication and ingenuity make spaceflight possible, a fully assembled stationis depicted rising above a sunlit Earth limb. Eastward of the sunlit limb, the distinctive portrayal of Earth's surface illuminated by nighttime city lights is a reminder of mankind's presence on the planet, most readily apparent from space only by night, and commemorates how human beings have transcended their early bonds throughout the previous 50 years of space exploration. The station, a unique space-based outpost for research in biological, physical, space, and Earth sciences, in the words of the crew members, is an impressive testament to the tremendous teamwork of the engineers, scientists, and technicians from 15 countries and five national space agencies.

I S S EXPEDITION 31 / 32

From left to right: Joseph Acaba, Gennagy Padalka, Sergey Revin

Launch Date : May 15, 2012 , 13:16 UTC
Vehicle : SOYUZ TMA - 04 M

Extended ISS Crew : Padalka (Russia), Revin (Russia), Acaba (USA)

Landing Date : September 17, 2012 , 2:53 UTC

ISS Crew - 31 : Cdr. Kononenko (Russia), FE's Kuipers (The Netherlands), Pettit (USA), Padalka (Russia), Revin (Russia), Acaba (USA)

Summary:
Operational support for loading / unloading and docking / undocking of Soyuz - / Progress spacecraft; operational support for docking, unloading, loading and undocking of CV SpX-D (Dragon spacecraft); performance of one EVA from the ISS RS; support of the Space Station functionality; performance of the science and application research program and experiments.

SOYUZ TMA - 04 M

The official crew patch for the Soyuz TMA-04M mission, designed by Luc van den Abeelen.:

„I wanted to use a real theme this time, and ships had worked very well in past space patches. I chose a ship with the name Nadezhdah, which was the first Russian ship to circumnavigate the globe. I added a compass and a Soyuz to emphasize the theme 'from nautical navigation to space navigation'. My original intention was to do something new and cut out some parts of the patch."

One of the problems, was the name of Acaba, because together with two Russian names, it would not stand out as being non-Cyrillic (it would spell 'Asava'). To solve this, flags were added, to show that this was an American name.
The idea to cut out some parts of the patch, was dropped, out of fear that space suit manufacturer Zvezda would not accept it. It would, for instance, have caused all sorts of trouble with the Velcro versions.

I S S EXPEDITION 32 / 33

From left to right: Akihiko Hoshide, Yuri Malenchenko, Sunita Williams

Launch Date : July 15, 2012 , 2:40 UTC
Vehicle : SOYUZ TMA - 05 M

Extended ISS Crew : Sunita Williams (USA), Malenchenko (Rus.), Hoshide (Japan)

Landing Date : November 19, 2012 , 1:54 UTC

ISS Crew - 32 : Cdr. Padalka (Russia), FE's Revin (Russia), Acaba (USA), Sunita Williams (USA), Malenchenko (Russia), Hoshide (Japan)

Summary:
Operational support for loading / unloading and docking / undocking of Soyuz - / Progress spacecraft; operational support for docking / unloading / loading / undocking of HTV3 vehicle; implementation of extra vehicular activity: one Russian egress (EVA) on the ISS RS and one US EVA on the ISS USOS; operational support for docking, unloading, loading and undocking of CV SpX-1 (Dragon spacecraft).

SOYUZ TMA - 05 M

The official crew patch for the Soyuz TMA-05M mission, designed by Luc van den Abeelen. In design, colour and font, this design was influenced by the Art Deco style. The vertical blue and black bands in the background refer to the similar design of the flag of the Russian Air Force. Two variants were made: one with a MiG fighter yet and one with three stars based on a monument near the road that leads to Star City. Malenchenko fully approved the design with the three stars. Later, some people commented on the fact that ‘Malenchenko’ was written in English, while ‘Soyuz’ was written in cyrillics. What had happened? While adapting the patch for Soyuz TMA-05M, Luc had used a font called ‘Broadway’, which in itself did not include cyrillic characters. For the word ‘Soyuz', he could easily substitute these cyrillic characters with latin script: COIO3. The name ‘Malenchenko’, however, included a cyrillic ‘L’ and ‘CH’. Luc wrote it in English, instead of downloading and installing the proper cyrillic variant of the Broadway font on his computer. Originally the design did not have a border. During the embroidery process, it turned out that it was very difficult to get a regular shape, with black and blue fields alternating. So, a light blue border was added.

I S S EXPEDITION 31

Thin crescents along the horizons of Earth and its Moon depict ISS Expedition 31. The shape of the patch represents a view of our galaxy. The black background symbolizes the research into dark matter, one of the scientific objectives of Expedition 31. At the heart of the patch are Earth, its Moon, Mars, and asteroids, the focus of current and future exploration. The station is shown in an orbit around Earth, with a collection of stars for the Expedition 30 and 31 crews.The small stars symbolize the visiting vehicles that will dock with the complex during this expedition.

I S S EXPEDITION 32

This patch represents the 32nd expedition to the ISS and the significance of the science being conducted there for current and future generations. The arch shape of the patch symbolizes the “doorway” to future space exploration possibilities. The space station, an orbiting laboratory above Earth, provides a unique perspective for Earth observation and monitoring. The flame depicts the pursuit of knowledge and highlights the importance of education as the key to future human spaceflight. The astronaut symbol circles Earth, acknowledging the work of all astronauts, past, present, and future. The names of each crew member located on the border of the patch are written to honor the various cultures and languages on the mission. The three flags also depict the home countries of the Expedition 32 crew members and signify the collaborative ISS partnership of 15 countries working as one.

I S S EXPEDITION 33 / 34

From left to right: Kevin Ford, Oleg Novitskiy, Evgeny Tarelkin

Launch Date : October 23, 2012 , 10:51 UTC
Vehicle : SOYUZ TMA - 06 M

Extended ISS Crew : Ford (USA), Novitskiy (Russia), Tarelkin (Russia)

Landing Date : March 16, 2013 , 3:06 UTC

ISS Crew - 33 : Cdr. Sunita Williams (USA), FE's Malenchenko (Russia), Hoshide (Japan), Ford (USA), Novitskiy (Russia), Tarelkin (Rus.)

Summary:
Operational support for loading / unloading and docking / undocking of Soyuz - / Progress spacecraft; undocking of CV Dragon SpX-1; docking of CV Dragon SpX-2; support of the Space Station functionality; performance of the science and application research program and experiments.

SOYUZ TMA - 06 M

The official crew patch for the Soyuz TMA-06M mission, designed by Evgeni Tarelkin and Luc van den Abeelen.

The Soyuz TMA-06M patch features the spacecraft on final approach to docking with the International Space Station. The solar panels of the orbital facility (ISS) are shaped to depict the Roman numerals XXXIII, for the 33rd expedition that this crew joins up with. The colours of the comet under the name of Tarelkin, white and red, are a reference to the seal of the City of Dmitrov, where he was born. The red and green one under Novitskiy's name represent the flag of Belarus, where the commander was born. Astronaut Ford's name is underlined by a blue comet and a yellow star, featured in the flag of his home state of Indiana.

I S S EXPEDITION 34 / 35

From left to right: Thomas Marshburn, Roman Romanenko, Chris Hadfield

Launch Date : December 19, 2012 , 12:13 UTC
Vehicle : SOYUZ TMA - 07 M

Extended ISS Crew : Hadfield (Canada), Romanenko (Russia), Marshburn (USA)

Landing Date : May 14, 2013 , 2:31 UTC

ISS Crew - 34 : Cdr. Ford (USA), FE's Novitskiy (Russia), Tarelkin (Russia), Hadfield (Canada), Romanenko (Russia), Marshburn (USA)

Summary:
Operational support for loading / unloading and docking / undocking of Soyuz - / Progress spacecraft; docking / unloading / loading / undocking of CV Dragon SpX-2; implementation of extra vehicular activity, namely two US EVA's on the ISS USOS; support of the Space Station functionality; performance of the science and application research program and experiments.

SOYUZ TMA - 07 M

The official crew patch for the Soyuz TMA-07M mission, designed by Erik van der Hoorn.
In late 2010, Romanenko was assigned a second flight and it happened to be Soyuz TMA-07M. The launch was scheduled for 2012; 50 years since launch of Friendship-7, Aurora-7 and Sigma-7. I instantly knew I would use this artwork and a red seven as a starting point for the design. Very early in the sketching process, I discovered that a Soyuz rocket would fit in nicely... and the pieces of the puzzle fell together. The crew approved the logo in the Summer of 2011 without requesting any changes. It was revealed on Twitter on July 31, 2012, by Chris Hadfield.

I S S EXPEDITION 33

The Expedition 33 patch depicts the ISS orbiting around Earth, and into the future. The national flags of Japan, Russia and the United States of America represent the crew of Expedition 33, which consists of six astronauts and cosmonauts from Japan, Russia and the United States. The five white stars represent the partners participating in the ISS Program - Canada, European countries, Japan, Russia and the United States. Expedition 33 will continue the work of the previous 32 expedition crews on board the multinational laboratory in areas such as biology and biotechnology, earth and space science, educational activities, human research, physical and material sciences, and technology development and demonstration.

I S S EXPEDITION 34

The crew members of the Expedition 34 mission put together the following description of their patch:

"The outer border of the Expedition 34 patch takes the mold line of a crew transfer or generic resupply vehicle which will form our bridge to the orbiting outpost throughout the second half of its operational lifetime. Inscribed inside in gold is a craft symbolizing future extra - terrestrial landers that will someday open other celestial destinations to human exploration. Our Sun, which enables the miracle of the only known life in our universe, radiates above the rich and colorful orb of Earth. Its 15 rays represent the countries of the ISS Partnership whose foresight and sacrifice have enabled the first small steps into our universe. The ISS in flight represents the dedication, ingenuity, and cooperation amongst the thousands and thousands of workers around the globe who have successfully designed and built a wonder of our modern world. The distant stars, like those visible in our night sky, beckon us to come further into the depths of space. - 'Off the Earth. . . For the Earth' - Our acknowledgement of the responsibility and commitment to work diligently for all inhabitants of planet Earth."

I S S EXPEDITION 35 / 36

From left to right: Christopher Cassidy, Pavel Vinogradov, Aleksandr Misurkin

Launch Date : March 28, 2013 , 20:43 UTC
Vehicle : SOYUZ TMA - 08 M

Extended ISS Crew : Vinogradov (Russia), Misurkin (Russia), Cassidy (USA)

Landing Date : September 11, 2013 , 2:58 UTC

ISS Crew - 35 : Cdr. Hadfield (Canada), FE's Romanenko (Russia), Marshburn (USA), Vinogradov (Russia), Misurkin (Russia), Cassidy (USA)

Summary:
Operational support for loading / unloading and docking / undocking of Soyuz - / Progress spacecraft; launch and docking of ATV-4 vehicle and of HTV-4 vehicle; implementation of EVA's on the ISS USOS; support of the Space Station functionality; performance of the science and application research program and experiments.

SOYUZ TMA - 08 M

Designed by Erik van der Hoorn and Jorge Cartes, with input from Soyuz commander Pavel Vinogradov and his crew.
- The colored half circles in the background, symbolize both the Earth and Sun, seperated into four colorful bands to create an illusion of the 4 orbits needed this time towards the ISS.
- The seven stars on the solar panels (U.S. Flag) symbolize „ISS-34S ship“ by NASA.

„Yes! 50 stars was a bit too much for the design, so we had to bring the number down to something like 5 to 10..... Still, we wanted the number of stars to have some meaning related to the flight. We had several options: a row of 3 and 4 could symbolize „34S“, 8 stars could symbolize „08M“, we even thought about a certain number of stars to represent the crew's children, etc.....
In the end, we concluded that 7 stars looked best“.

I S S EXPEDITION 36 / 37

From left to right: Karen Nyberg, Fyodor Yurchikhin, Luca Parmitano

Launch Date : May 28, 2013 , 20:31 UTC
Vehicle : SOYUZ TMA - 09 M

Extended ISS Crew : Yurchikhin (Russia), Karen Nyberg (USA), Parmitano (Italy)

Landing Date : November 11, 2013 , 2:49 UTC

ISS Crew - 36 : Cdr. Vinogradov (Russia), FE's Misurkin (Russia), Cassidy (USA), Yurchikhin (Russia), Karen Nyberg (USA), Parmitano (Italy)

Summary:
Operational support for loading / unloading and docking / undocking of Soyuz - / Progress spacecraft; docking of HTV-4 vehicle; docking of CV Orb-D1 vehicle; implementation of EVA's on the ISS RS and EVA's on the ISS USOS; support of the Space Station functionality; performance of the science and application research program and experiments.

SOYUZ TMA - 09 M

Designed by Luc van den Abeelen, Dmitriy Shcherbinin and Fyodor Yurchikhin. The Soyuz TMA-09M patch designs shares elements of the two earlier Soyuz mission patches that Fyodor Yurchikhin participated in (TMA-10 and TMA-19): „a bright blue rim featuring the crew names with a dark blue border and a central field featuring the Earth and the spacecraft in yellow and orange. The white and light blue streaks underneath the Soyuz symbolize that this is the fourth mission to the ISS for Soyuz commander Yurchikhin; the first being on an American spacecraft during STS-112.“ This design shares one element with another patch: „the ISS is taken from the patch of Expedition 37, which Yurchikhin commands.“ The inner border of the bright blue rim representing the outer rim of the VSK-4 (Vizir Spetsialniy Kosmicheskiy-4) periscope view aboard the Soyuz.

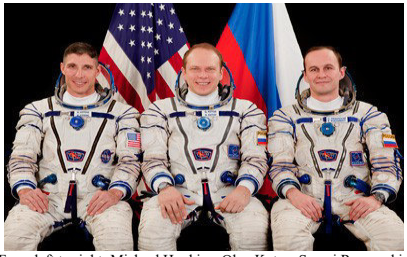
I S S EXPEDITION 35

Emblazoned with a bold 35 for the 35th expedition to the ISS , this patch portrays a natural moonlit view of Earth from the ISS at the moment of sunrise, one of the 16 that occur each day at orbital velocity, with glowing bands of Earth's atmosphere dispersing the sun's bright light into primary colors. The Earth is depicted as it often appears from space, without recognizable coastlines or boundaries - just as the international endeavor of living and working together in space blurs technical and cultural boundaries between nations. The space station is the unseen central figure of the image, since the view is from a window of the station itself, commemorating full use of the station as a long - duration dwelling from which humans can develop techniques and technologies to explore further. As the crew points out, "The arc of the Earth's horizon with the sun's arrows of light imply a bow shooting the imagination to Mars and the cosmos where our species may one day thrive."

I S S EXPEDITION 36

The dynamic design of the Expedition 36 patch portrays the ISS's iconic solar arrays. The slanted angles denote a kinetic energy leading from Earth in the lower right to the upper left tip of the triangular shape of the patch, representing the infinite scientific research, education and long-duration spaceflight capabilities the space station provides with each mission, as well as our goal for future exploration beyond the station. The numbers 3 and 6 harmoniously intertwine to form expedition number 36 and its gray coloration signifies the unity and neutrality among all of the international partners of the space station. The blue and gold color scheme of the patch represents the subtle way the central gold orbit wraps around the number 36 to form a trident at its lower right tip. The trident also symbolizes the sea, air and land, all of which make up Earth from where the trident originates in the design.

I S S EXPEDITION 37 / 38



From left to right: Michael Hopkins, Oleg Kotov, Sergei Ryazanskiy

Launch Date : September 25, 2013 , 20:59 UTC
Vehicle : SOYUZ TMA - 10 M

Extended ISS Crew : Kotov (Russia), Ryazanskiy (Russia), Hopkins (USA)

Landing Date : March 11, 2014 , 03:24 UTC

ISS Crew - 37 : Cdr. Yurchikhin (Russia), FE's Karen Nyberg (USA), Parmitano (Italy), Kotov (Russia), Ryazanskiy (Russia), Hopkins (USA)

Summary:
During ISS-37 and ISS-38, 565 sessions of 43 experiments are planned to be implemented. 33 experiments were started in the previous increments. 10 experiments (Napor-mini RSA, Seismoprognoz, Motocard, DALNOST', About Gagarin from Space, Virtual, SPLANH, Rasteniya, Akvarium and Kaplya-2) are new.

SOYUZ TMA - 10 M

Designed by Valeria Kotov and Spacepatches.nl.

It was designed by Oleg Kotov's 19-year old daughter Valeria and proudly prepared for the crew by the Spacepatches.nl - team.

Att.:
The first one without the word "СОЮЗ" or "TMA" on it since TMA-01M.

I S S EXPEDITION 37 / 38 / 39

From left to right: Koichi Wakata, Mikhail Tyurin, Rick Mastracchio

Launch Date : November 7, 2013 , 4:14 UTC
Vehicle : SOYUZ TMA - 11 M
Extended ISS Crew : Wakata (Japan), Tyurin (Russia), Mastracchio (USA)
Landing Date : May 14, 2014 , 01:58 UTC

ISS Crew after Soyuz docking :

Cdr. Yurchikhin (Russia), FE's Karen Nyberg (USA), Parmitano (Italy), Kotov (Russia), Ryazanskiy (Russia), Hopkins (USA), Wakata (Japan), Tyurin (Russia), Mastracchio (USA)

ISS Crew - 38 : Cdr. Kotov (Russia), FE's Ryazanskiy (Russia), Hopkins (USA), Wakata (Japan), Tyurin (Russia), Mastracchio (USA)

Summary: Inside the Soyuz spacecraft -TMA-11M- carrying the astronauts was the Olympic torch. Exp. 37 FE's Kotov and Ryazanskiy (both Russia) open the hatch to the Pirs docking compartment (Nov. 11, 2013) and float outside for a brief photo opportunity with the unlit torch. Inside the Soyuz spacecraft -TMA-09M- carrying the astronauts, the Olympic torch return to Earth.

SOYUZ TMA - 11 M

Designed by Luc van den Abeelen with Michail Tyurin and the Soyuz TMA-11M crew.
Like Tyurin's earlier Soyuz TMA-9 patch, this design features the MAI 6th logo - the faculty of the Moscow Aviation Institute that he graduated from.
Also pictured is an Olympic flame, because this flight will deliver to the ISS the Sochi 2014 torch.

I S S EXPEDITION 37

Leonardo da Vinci's Vitruvian Man, created some 525 years ago as a blend of art and science and a symbol of the medical profession, is depicted amongst the orbits of a variety of satellites circling the Earth at great speed. Da Vinci's drawing, based on the proportions of man as described by the Roman architect Vitruvius, is often used as a symbol of symmetry of the human body and the universe as a whole. Almost perfect in symmetry as well, the ISS, with its solar wings spread out and illuminated by the first rays of dawn, is pictured as a mighty beacon arcing upwards across our night skies, the ultimate symbol of science and technology of our age. Six stars represent the six members of Expedition 37 crew, which includes two cosmonauts with a medical background, as well as a native of Da Vinci's Italy.

EXAMPLE FOR DIFFERENT MISSION PATCHES

Left:

The **AB Emblem** patch (without border), worn during ground operations and by the Soyuz TMA-10M crew on their Sokol suits.

Right:

The **Spacepatches.n**l patch (with border), worn in space on all six Kentavr suits and during landing by the Soyuz TMA-09M crew on their Sokols.

I S S EXPEDITION 37 , cont.

It is not an official mission patch but the expedition 37 crew were briefly joined by an additional three members to hand over the 2014 Winter Olympic Torch.
(Spaceboosters Online Store)

I S S EXPEDITION 37 , cont.

Handover procedures differed slightly for this flight - the Soyuz TMA-09M crew was still onboard when the crew of Soyuz TMA-11M arrived.

This was done to be able to pass the torch for the Olympic Wintergames in Sochi from one crew to another.

For this short period of the flight, Blake Dumesnil designed an Expeditoon 37.5 patch, worn by several crew members.

I S S EXPEDITION 37 , cont.

Left: NASA's Expedition-37 artwork (still showing the name of Suraev) was rejected by Yurchikhin in January 2012 ...

Right: ...still, NASA ordered AB Emblem to produce it as a patch.

Karen Lujean Nyberg :
I was the designer for the original "blue shield" patch. My aunt, Karen Nyberg, was the mission specialist on the expedition. As a graphic designer she asked me if I would come up with some designs. The original design was approved but there were some last minute changes to the crew lineup and the new commander wanted to have a new design. That is why there was a change in the design and the originals all came out in production.

I S S EXPEDITION 37 , cont.

Tsenki versions :

Tsenki produced both the
left : AB Emblem style, official patch and
right : the 'Planet of flowers' ,
a design according to the wishes of Yurchikhin and Kotov

I S S EXPEDITION 37 , cont.

The three versions of the Expedition-37 patch sitting peacefully in the Russian segment of the ISS.

Two embroidered versions of the 'Planet of flowers', both produced at the request of Yurchikhin.
The **left** version was a quick production for the crew to wear in the July photoshoot.
The **right** version was produced at a later stage and meant as a memento to be flown on the mission.

I S S EXPEDITION 37 , cont.

Top :
Even though the Da Vinci design became the official mission insignia, Fyodor insisted that a larger version of the 'Planet of Flowers' (dubbed by the Russians "Planet of Flowers", or "Planet of Colours"), this time with an overlock border, would be produced as a personal memento.

Bottom :
This version of the patch was produced by Tsenki, the Russian center for ground based space infrastructure facilities operation, for distribution at Baikonur.

I S S EXPEDITION 38

As the International Space Station has become a stepping stone to future space exploration, the Expedition 38 mission patch design paints a visual roadmap of exploration beyond low Earth orbit, most prominently represented by the design's flowing Expedition 38 mission numbers that wrap around Earth, the moon and Mars. Just as the sun is a guiding light in the galaxy, the space station illuminates the bottom of the design as a shining beacon of the advancement of science, knowledge and technology carried out aboard the space station. To visually capture the idea of the space station being a foundation for infinite discovery, the space station's iconic solar arrays span upwards, providing the number 38 and its exploration roadmap a symbolic pedestal to rest on. Finally, the overall use of red, white and blue in the design acknowledges the flags of the countries of origin for Expedition 38's crew the United States, Russia, and Japan.

I S S EXPEDITION 38 , cont.

Geocaching in Space Mission Patch :

Celebrate the geocaching spirit of exploration with this Geocaching in Space Mision Patch.

U.S. astronaut Rick Mastracchio will carry a Travel Bug trackable into space in November 2013. Thousands of geocachers at more than 1000 events around the world are scheduled to watch the launch. The Travel Bug will be used to teach students back on Earth about geography and science.

Geocaching.com will donate the profits from sale of this patch to Donorschoose.org for use in funding projects that use geocaching as an educational tool.

I S S EXPEDITION 39 / 40

From left to right: Steven Swanson, Aleksandr Skvortsov, Oleg Artemyev

Launch Date : March 25, 2014 , 21:17:23 UTC
Launch Vehicle : SOYUZ TMA - 12 M

Extended ISS Crew : Skvortsov (Russia), FE's Artemyev (Russia) Swanson (USA)

Landing Date : September 11, 2014 , 02:23 UTC

ISS Crew - 39 : Cdr. Wakata (Japan), FE's Tyurin (Russia), Mastracchio (USA) , Swanson (USA), Skvortsov (Russia), Artemyev (Russia)

Summary:
Support of the Space Station functionality; operational support for loading / unloading and docking / undocking of Soyuz / Progress / Dragon spacecrafts; performance of the science and application research program and experiments; implementation of the utilization program; performance of EVA's from the American - and Russian Segment.

SOYUZ TMA - 12 M

The official crew patch for the Soyuz TMA-12M mission.
Designed by Luc van den Abeelen.
Produced by Spacepatches.nl / Lucreation.net.

The Soyuz TMA-12M mission patch shows the entire cycle of the spacecraft's flight. Liftoff is depicted showing the launch vehicle from a dramatic angle, flying into a starry sky towards the silhouette of the International Space Station. The six larger stars represent the six-member crew of ISS. The scene is framed by the Soyuz landing apparatus, suspended under the large canopy of the main parachute. The crew names are incorporated in the orange bands on the white parachute.

I S S EXPEDITION 40 / 41

From left to right: Alexander Gerst, Maksim Suraev, Gregory Wiseman

Launch Date : May 28, 2014 , 19:57:40 UTC
Vehicle : SOYUZ TMA - 13 M

Extended ISS Crew : Suraev (Russia), Wiseman (USA), Gerst (Germany)

Landing Date : November 10, 2014 , 03:59 UTC

ISS Crew - 40 : Cdr. Swanson (USA), FE's Skvortsov (Russia), Artemyev (Russia), Suraev (Russia), Wiseman (USA), Gerst (Germany)

Summary:
Support of the Space Station functionality; operational support for loading / unloading and docking / undocking of Soyuz / Progress / Cygnus / ATV spacecrafts; performance of the science and application research program and experiments; implementation of the utilization program; performance of EVA's from the American Segment.

SOYUZ TMA - 13 M

The official crew patch for the Soyuz TMA-13M mission.
Designed by Luc van den Abeelen. Produced by Spacepatches.nl / Lucreation.net
The patch design for Soyuz TMA-13M included the so called 'Fisherman' statue at Baikonur (the cosmonaut is spreading his arms, as if to say how big the fish was that he caught) and a Soyuz rocket on display in the Russian town Samara (where Soyuz rockets are being manufactured by TsSKB-Progress).
As Suraev would end up as commander of Soyuz TMA-13M, he accept the Fisherman design. There were some minor changes – including the inclusion of the Cepheus call sign and constellation and the placement of the Roscosmos logo over the rocket.The final logo was approved by the crew on June 19, 2013; Roscosmos and GCTC approved it on September 11, 2013. There was one final, small change in January 2014, when the design team decided to add the initials “MZ” over the Earth, near „B“ to commemorate American friend and Soyuz patch collector Mike Zolotorow, who had died on December 10, 2013.

SOYUZ TMA - 13 M , cont.

Another version of the SOYUZ TMA - 13 M patch :

Collect Space :
I got recently information the crew had one more version of the patch where the cosmonaut is flying upside down.
Yes, it does exist. It was a special request by Max Suraev, as a small joke, to hand out to friends and family etc.

I S S EXPEDITION 40 / 41

Blue Dot ESA mission logo :

Mission logo for ESA astronaut Alexander Gerst's Mission to the ISS.
The mission logo is ajar to a picture that the NASA spacecraft Voyager in Six billion kilometers away from ours Planet took up.
The US astronomer Carl Sagan described the barely visible earth in the photo as "Pale Blue Dot", as a pale blue dot.

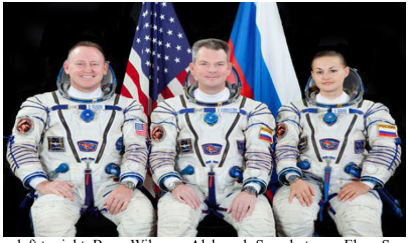
I S S EXPEDITION 39

Expedition 39 of the International Space Station Program marks the 15th year of operation since the start of the space laboratory assembly. Today, the U.S., Russia, Japan, Canada and the European Space Agency are partnering in the operation of the largest-ever orbital outpost managed by humanity. The names of the six crew members are depicted in their native languages. For Expedition 39, the Soyuz spacecraft serves as transport vehicle for the crew members to and from the station. During this expedition, the space station will serve as a platform for scientific research, Earth and astronomical observation and education, as well as a stage for the development of new technologies used for exploring beyond low-Earth orbit. The star above the complex signifies human space exploration towards new frontiers. The crew members added these words: "The crew of Expedition 39 is proud to serve the international community in furthering our scientific knowledge and in expanding human presence in space."

I S S EXPEDITION 40

The Expedition 40 patch depicts the past, present and future of human space exploration. The crew wrote the description that follows: The reliable and proven Soyuz, our ride to the International Space Station, is a part of the past, present and future. The space station is the culmination of an enormous effort by many countries partnering to produce a first-class orbiting laboratory, and its image represents the current state of space exploration. The space station is immensely significant to us as our home away from home and our oasis in the sky. The commercial cargo vehicle is also part of current human space exploration and is a link to the future. A blend of legacy and future technologies is being used to create the next spacecraft that will carry humans from our planet to destinations beyond. The sun on Earth's horizon represents the new achievements and technologies that will come about due to our continued effort in space exploration.

I S S EXPEDITION 41 / 42



From left to right: Barry Wilmore, Aleksandr Samokutyaev, Elena Serova

Launch Date : September 25, 2014 , 20:25:00 UTC
Launch Vehicle : SOYUZ TMA - 14 M

Extended ISS Crew : Wilmore (USA), Samokutyaev (Russia), Elena Serova (Russia)

Landing Date : March 12, 2015 , 02:14 UTC

ISS Crew - 41 : Cdr. Suraev (Russia), FE's Wiseman (USA), Gerst (Germany), Wilmore (USA), Samokutyaev (Russia), Elena Serova (Russia)

Summary:
Support of the Space Station functionality; operational support for loading / unloading and docking / undocking of Soyuz / Progress spacecrafts; performance of the science and application research program and experiments; implementation of the utilization program; performance of EVA's from the American - and Russian Segment.

SOYUZ TMA - 14 M

The official crew patch for the Soyuz TMA-14M mission.
Designed by Luc van den Abeelen.
Produced by Spacepatches.nl / Lucreation.net.

The Soyuz TMA-14M mission patch shows a porthole on the International Space Station, providing a view of the new spaceship coming in for docking. In the background, the rising sun announces dawn and a new expedition on the orbital research facility, expanding our knowledge and preparing for new destinations.

I S S EXPEDITION 42 / 43

From left to right: Terry Virts, Anton Shkaplerov, Samanta Cristoforetti

Launch Date : November 23, 2014 , 21:00:14 UTC
Vehicle : SOYUZ TMA - 15 M

Extended ISS Crew : Virts (USA), Shkaplerov (Russia), Samanta Cristoforetti (Italy)

Landing Date : June 11, 2015 , 13:43 UTC

ISS Crew - 42 : Cdr. Wilmore (USA), FE's Samokutyaev (Russia), Elena Serova (Russia), Virts (USA), Shkaplerov (Russia), Samanta Cristoforetti (Italy)

Summary:
Support of the Space Station functionality; operational support for loading / unloading and docking / undocking of Soyuz / Progress / Dragon spacecrafts; performance of the science and application research program and experiments; implementation of the utilization program; performance of three EVAs from the American Segment

SOYUZ TMA - 15 M

The official crew patch for the Soyuz TMA-15M mission, designed by Anton Shkaplerov, together with Italian artist Riccardo Rossi and candidate cosmonaut Andrei Babkin.The patch for 'Soyuz TMA-15M' is based on the shape and features of an attitude indicator, a fundamental element on an airplane instrument panel. This represents the pilot profession, which is common to all three crewmembers. The outline of a Soyuz spaceship and its golden solar array panels, representing the horizontal lines of the indicator, are integrated with the instrument's pitch and bank angle scales. The depicted attitude of the spaceship corresponds to a bank angle of 15 degrees and a pitch angle of 51degrees. Russian and Latin characters, indicating the names of the crewmembers and the spaceship's name 'Soyuz TMA-15M', are distributed in the external scale ring. The Soyuz spaceship flying above Earth connects the left side of the patch, which includes the destination – ISS, with the right side – the rising Sun. A shadow, in the shape of an airplane uniting elements of Mig-29, F-16 and AMX, accompanies the flight of the spaceship and points to the indissoluble link between aviation and spaceflight. The three more prominent stars, next to the constellations Auriga and Cassiopeia, represent the fulfillment of a spaceflight by the cosmonaut and the two astronauts of this expedition. The overall number of stars corresponds to the last two figures of the launch year (2014) and, including the Sun, of the return year (2015).

I S S EXPEDITION 41

The Expedition 41 crew wrote the description that follows: Portraying the road of human exploration into our vastly unknown universe, all elements of the Expedition 41 patch build from the foundation, our Earth, to the stars beyond our solar system. The focus of our six-month expedition to the space station is Earth and its inhabitants, as well as a scientific look out into our universe. The distinguishing space station solar arrays reach onward and serve as the central element, with the icon of an atom underneath representing the multitude of research aboard that will bring new discoveries for the benefit of humanity. The sun is rising over Earth's horizon, spreading its light along the road of human exploration. Equipped with the knowledge and inspiration gained from the space station, our successful multinational cooperation will lead human space exploration to the moon, Mars, and ultimately, the stars.
We are Expedition 41. Join us for the adventure.

I S S EXPEDITION 42

The Expedition 42 crew wrote the description that follows: The rectangular-shaped design portrays the International Space Station orbiting planet Earth with its solar array wings spread wide. Facing the sun with the lower left outboard solar array feathered, the left array portrays a prominent number "4" and the fully deployed arrays on the right form the Roman numeral version of "2." This signifies the two increment crews which, together, comprise the six-member international Expedition 42 crew. The crew and all supporting personnel around the world are also represented by the six stars adorning the sky around the complex.

I S S EXPEDITION 43 / 44 / 45 / 46

From left to right: Scott Kelly, Gennady Padalka , Mikhail Kornienko

Launch Date : March 27, 2015 , 19:42 UTC
Vehicle : SOYUZ TMA - 16 M

Extended ISS Crew : Padalka (Russia) **and**
One-Year Crew : Scott Kelly (USA), Mikhail Kornienko (Russia)

Landing Crew : Padalka (Russia) **and**
Visiting Crew – 18 : Aimbetov (Kazakhstan), Mogensen (Denmark)

Landing Date : September 12, 2015 , 00:52 UTC

ISS Crew - 43 : Cdr. Virts (USA), FE's Shkaplerov (Russia), Samanta Cristoforetti (Italy), Padalka (Russia) **and**
One-Year Crew: Kelly (USA), Kornienko (Russia)

Summary: Operational support for loading / unloading and docking / undock. of Soyuz - / Progress - / Dragon spacecraft; robotically relocation of the large **Permanent Multipurpose Module,** used as a supply depot on the orbital laboratory, from the **Earth-facing port of the Unity module** to the **forward port of the Tranquility module.**

SOYUZ TMA - 16 M

The official crew patch for the Soyuz TMA-16M mission.
Designed by Luc van den Abeelen.
Produced by Spacepatches.nl / Lucreation.net

In the background, the outline of a stopwatch is visible, which, when combined with the three running figures, depicts the "marathon" theme of this crew, as two of its members aim for a record stay of twelve months and Soyuz commander Padalka will break the record for cumulative days in space. Three stars for the crew members, their names, the spacecraft identification and the Roscosmos logo complete the background of the stopwatch, while the Russian and American national colors form the outer border of the design. The patch design was approved by the crew on November 26, 2013 and by Roscosmos on December 2, 2013. It was revealed on September 3, 2014 on Spacepatches.nl

ONE - YEAR CREW INSIGNIA

Scott Kelly collaborated with patch artists Jorge Cartes and Tim Gagnon to design the "Year in Space" mission emblem (accepted by NASA)

This commemorative patch represents the historic first yearlong expedition to the International Space Station.

The large number 1 on the patch is emblazoned with US and Russian Flags depicting the duration of the flight and the countries of its crewmembers. The 3 big stars within the large number 1 on the US-flag has no offical meaning but due to a information from the designer: “I put three stars on purpose: first one for Scott Kelly, -he had the initial idea-, a second one for Tim Gagnon, who helped me with several opinions, and finally one more for me (Jorge Cartes) who conducted all the project. The three authors of the patch.“. The last names of the one-year crew, ISS commander Scott Kelly and flight engineer Mikhail Kornienko, appear under the station symbol above 13 stars, which represent the astronauts and cosmonauts who will be on-board and working together in harmony during this year-long mission (ISS 43 / 44 / 45 / 46 MKC) The Earth and sun are depicted with two orbital planes, symbolizing the ISS orbiting the Earth while the Earth is orbiting the sun during the year-long mission.

ONE - YEAR MISSION

Soyuz TMA-16M, ISS Expeditions 43 – 44 – 45 – 46 and One Year Mission

The ISS, an orbiting laboratory above the Earth, provides a unique environment in which to study the effects of long-duration space flight on the human body. This one-year mission will pave the way for future pursuits in space exploration of humankind on longer journeys to farther destinations. The One-Year Mission focuses on seven categories of research. Kelly (USA) and Kornienko (Russia) resided on the ISS for a year, which is twice as long as typical ISS-expedition missions. These investigations are yielding beneficial knowledge on the medical, psychological and biomedical challenges faced by astronauts during long-duration spaceflight.

I S S EXPEDITION 44 / 45

From left to right: Kjell Lindgren, Oleg Kononenko, Kimiya Yui

Launch Date : July 22, 2015 , 21:02:45 UTC
Vehicle : SOYUZ TMA - 17 M

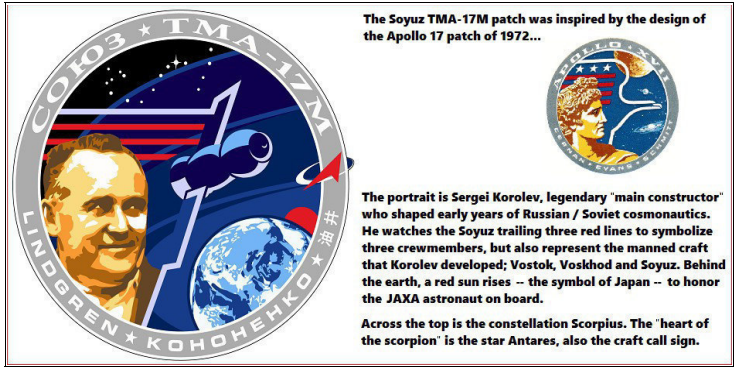
Extended ISS Crew : Kononenko (Russia), Lindgren (USA), K. Yui (Japan)

Landing Date : December 11, 2015 , 13:18 UTC

ISS Crew - 44 : Cdr. Padalka (Russia), FE's Kononenko (Russia), Lindgren (USA), K. Yui (Japan)
and
One-Year Crew: Kelly (USA), Kornienko (Russia)

Summary:
Operational support for loading / unloading and docking / undocking of Soyuz - / Progress - / ATV spacecraft; support of the Space Station functionality; performance of one Russian Segment based EVA; Launch of one Russian ISS-44/45/46 Expedition crewmember and two VC-18 members by vehicle Soyuz TMA-18M; performance of the science and application research program and experiments.

SOYUZ TMA - 17 M



A first version of the Soyuz TMA-17M artwork was drawn by Luc van den Abeelen in November 2013. It was a tribute to both the Apollo-17 mission and Soviet rocket designer Sergei Pavlovich Korolev.

Left: The Apollo-17 patch artwork
Center: Luc's initial proposal
Right: Luc's last version of the artwork with added Expedition-45 background

From this point onwards, Blake Dumesnil was asked by the crew to finalize the patch.

I S S EXPEDITION 43

The hexagon (six-sided) shape of the Expedition 43 patch represents the six crew members living and working onboard the orbital outpost. The International Space Station is portrayed in orbit around the Earth, representing the multi-national partnership that has constructed, developed, and continues to operate the ISS for the benefit of all humankind.
The sunrise marks the beginning of a new day, reflecting the fact that we're at the dawn of our history as a space faring species. The moon and planets represent future exploration of our solar system, for which the ISS is a stepping stone. Finally, the five stars honor the crews who have lost their lives during the pursuit of human spaceflight.

The patch was designed by Matt Lehman, assisted by Brandon Heath, working with Terry Virts. It was revealed by NASA on May 4, 2013.

I S S EXPEDITION 44

This is the insignia for the Expedition 44 mission. The International Space Station is positioned in the foreground poised to study Earth, the sun and cosmos that lie beyond. Two members of the Expedition 44 crew will spend a full year on the ISS – providing valuable experience for future long duration missions into deep space. The 12 Earths represent the planet's position around the sun over the course of that year. Four of the Earths are silhouetted in sunlight representing the four month duration of Expedition 44. The nine stars in the background represent the nine individuals that will visit and work on the ISS during the course of the expedition, including the six-member crew, whose names are inscribed around the patch's border, and the three-person Soyuz "taxi" crew. The use of ellipses and circles throughout the patch reflect a theme of "completion" or "return," as investments made in this orbiting laboratory return benefit to the Earth and its inhabitants.

I S S EXPEDITION 45 / 46

From left to right: Aydyn Aimbetov, Sergey Volkov, Andreas Mogensen

Launch Date : Septenber 2, 2015 , 4:37 UTC
Vehicle : SOYUZ TMA - 18 M

Extended ISS Crew : Volkov, (Russia), **and**
Visiting Crew – 18 : Aimbetov (Kazakhstan), Mogensen (Denmark)

Landing Crew : Volkov, (Russia), **and**
One-Year Crew: Kelly (USA), Kornienko (Russia)

Landing Date : March 2, 2016 , 04:29 UTC

ISS Crew - 44 after Soyuz docking between Sep. 2 and Sep. 12, 2015 :
(One-Year Crew) *Cdr. Padalka, FE's Kononenko,Lindgren, K. Yui, Kelly, Kornienko, Volkov, Aimbetov, Mogensen*

ISS Crew - 45 : Cdr. Kelly (USA), FE's Kornienko (Russia),
(One-Year Crew) Kononenko (Russia), Lindgren (USA),
K. Yui (Japan), Volkov, (Russia)

Summary: Operational support for loading / unloading and docking / undocking of Soyuz - / Progress - / HTV - / Cygnus spacecraft; support of the Space Station functionality

SOYUZ TMA - 18 M

The basic idea for this patch was submitted by Jorge Cartes to the Soyuz Crew Graphics Support team in March 2013 for ISS Expedition-44. At that time, however, work was already underway in the United States to design a patch for this mission. With its pentagonial shape, it was aimed at a 2015 mission to commemorate the 40th anniversary of the Apollo Soyuz Test Project. In May 2013, Jorge was informed that the patch would be proposed to the Soyuz TMA-16M crew, at that time expected to be commanded by Yuri Lonchakov. When Lonchakov was replaced by Gennadi Padalka in August 2013, Jorge's artwork was moved up to TMA-18M (Luc van den Abeelen had designed the patches for Padalka's previous four flights, so he was a more logical choice for TMA-16M; proposals for TMA-17M also already existed). Since soprano Sarah Brightman was expected to be aboard Soyuz TMA-18M, Jorge was asked to add some (fantasy) musical symbols to the design. Sergei Volkov accepted the patch in October 2013; it was approved by Roscosmos on April 23, 2014. The patch artwork was revealed on Spacepatches.nl on March 5, 2015. When it became apparent that Brightman would not fly, Volkov insisted that the musical notes should remain on the patch, as a more generic "music of space" theme, so only her name was replaced by that of Aimbetov.

SOYUZ TMA - 18 M , cont.

From Robert Pearlman, collectSpace :

The patch description translated with the aid of Google Translate and some slight paraphrasing:

Sergei Volkov requested Luc van den Abeelen, an artist from the Netherlands, to design a special patch for the crew of Soyuz TMA-18M when returning to Earth. Sergei Volkov put three patches in his spacesuit pocket for his launch on September 2, 2015.

The patch is made in the form of a pentagon, as is the "launch" patch. The figure shows the descent vehicle of the ship under the parachute. Blue stripes crossing the composition are a stylized Roman Numeral XII symbolizing the 12-month duration of the record flight. Three golden stars represent the three cosmonauts.

The words "Landing TMA-18M" are placed in the upper part of the emblem, and in the lower part - the names of cosmonauts and astronaut returning to the Earth: Volkov, Kelly, Kornienko . Next to the name of Sergei Volkov is placed a symbolic silhouette of the conqueror of space, taken from the logo of the Russian Cosmonauts' Squad. This is a reminder that Sergei for a number of years served as commander of the Cosmonaut Detachment of the Yuri Gagarin Cosmonaut Training Center.

In preparation for descent from orbit, the astronauts were not able to attach these patches to their spacesuits due to their heavy workload, but after landing, Scott Kelly wore such a patch on the sleeve of a blue uniform.

Only 50 of these patches were made

Emblem description - Leon Rosenblum

I S S EXPEDITION 46 / 47

From left to right: Timothy Peake, Yuri Malenchenko, Timothy Kopra

Launch Date : December 15, 2015 , 1:03:09 UTC
Vehicle : SOYUZ TMA - 19 M

Extended ISS Crew : Kopra (USA), Peake (Great Britain), Malenchenko (Russia)

Landing Date : June 18, 2016 , 09:15 UTC

ISS Crew - 46 : (One-Year Crew) Cdr. Kelly (USA), FE's Kornienko (Russia), Volkov, (Russia), Kopra (USA), Peake (Great Britain), Malenchenko (Russia)

Summary: Operational support for loading / unloading and docking / undocking of Soyuz - / Progress - / Dragon - / Cygnus spacecraft; **Bigelow Expandable Activity Module (BEAM)** was finally installed on the ISS Station's Node 3 port on April 16, 2016 and was expanded to its full size at May 28. Unlike the space station's other modules, which are made of metal alloys, BEAM is made of reinforced fabric designed to be resistant to radiation and bombardment by tiny flecks of space junk and micrometeoroids.

SOYUZ TMA - 19 M

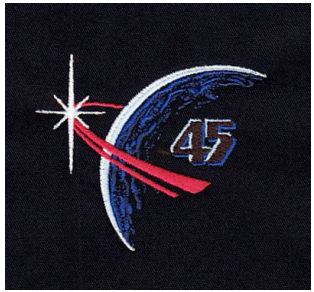
The official crew patch for the Soyuz TMA-19M mission
Produced by Spacepatches.nl / Lucreation.net

Image of the TsENKI patch version
The patch is produced by TsENKI in Russia

I S S EXPEDITION 45

I S S EXPEDITION 45 , cont.

The Expedition 45 crew will conduct its journey of exploration and discovery from a summit rising from a foundation that was built by past generations of pioneers, scientists, engineers and explorers.
This foundation is represented by the book of knowledge at the bottom of the patch. Curves radiate from the book representing the flow of knowledge - and the hard work, sacrifice and innovation that makes human spaceflight possible. The pages written during Expedition 45 will serve to benefit humanity on Earth and in space.The Space Station is represented by a single bright star soaring around the Earth, illuminating the path to more distant targets to be explored in the future on the foundation of knowledge built by the International Space Station. These targets are also featured in the patch - the Moon, Mars and more distant targets seen as small dots of light. Also included in the patch are the name of the six Expedition 46 crew members are written in their native languages.
The Expedition 45 patch was designed by Kjell Lindgren working with artist Blake Dumesnil.



A first glimpse at the **simplified shirt art** of the ISS Expedition 45 insignia was seen on July 10, 2014 in Johnson Space Center training photography.
The picture above is a partial view of the shirt.

I S S EXPEDITION 46

FIRST VERSION OF THE ISS EXPEDITION 46 MISSION

The Expedition-46 patch was designed with input from commander Scott Kelly. The patch was released first in embroidered form by AB Emblem on August 10, 2014. It did not receive a very warm welcome from the space community, as it was considered 'unbalanced' and reminded some people of a swastika - a feeling that was amplified by the black and gray colors.
A first batch of patches to be sent to the ISS by an unmanned Progress freighter was received at Baikonur in early October 2014. Energya workers preparing the patches for flight, noticed that the '46' symbol on the patch looked like the logo of the Social-National Assembly of Ukraine and their Azov Battalion, a paramilitary detachment fighting the pro-Russian rebels. They consulted with the head of Energya, Sergei Romanov, who in turn alerted Roscosmos head of manned spaceflight Alex Krasnov. Krasnov contacted NASA, who decided a redesign was needed. The new artwork was ready on October 21, 2014.
Two days later, AB Emblem ceased production of the first version.
In addition to a different '46', the second – official - embroidered version was given an overlock border.

I S S EXPEDITION 46 , cont.

OFFICIAL VERSION OF THE ISS EXPEDITION 46 MISSION

The 46 icon in the foreground of the patch represents the forty-sixth expedition on the International Space Station. Earth is depicted at the top with the flags of the countries of origin of the crew members: the United States, Russia and the United Kingdom. The Union flag of the UK is displayed in a position of prominence in recognition of the significance of the first British ESA (European Space Agency) astronaut to fly in space. The outer border is in the shape of a triangle with an unbroken border, symbolizing the infinite journey of discovery for past, present and future space explorers. The names of the six Expedition 46 astronauts and cosmonauts are shown in the border.

I S S EXPEDITION 47 / 48

From left to right: Jeffry Williams, Alexey Ovchinin, Oleg Skripochka

Launch Date : March 18, 2016 , 21:26 UTC
Launch Vehicle : SOYUZ TMA - 20 M

Extended ISS Crew : Williams (USA), Ovchinin (Russia), Skripochka (Russia)

Landing Date : September 7, 2016 , 01:14 UTC

ISS Crew - 47 : Cdr. Kopra (USA), FE's Peake (Great Britain), Malenchenko (Russia), Williams (USA), Ovchinin (Russia), Skripochka (Russia)

Summary:
Support of the Space Station functionality; operational support for loading / unloading and docking / undocking of Soyuz - / Progress - / Dragon - / Cygnus spacecrafts; performance of the science and application research program and experiments; implementation of the utilization program

SOYUZ MS - 20 M

The Soyuz TMA-20M patch pays tribute to the origins of heraldry by its use of the classic shield shape. Its fields are divided by band of colors representing the Russian and American flags. The silhouette of a Soyuz spacecraft is at the centre of the shield, which is crowned by an outline of the ISS. Three stars against the blackness of space symbolize the three astronauts of the spaceship, while animals feature in the other three quadrants. The black bear comes from the coat of arms of the city of Rybinsk, birthplace of spaceship commander Ovchinin. This city on the Volga is also the 'capital of barge-haulers', called Burlaks in Russian. 'BURLAK' is the callsign for the crew of this Soyuz mission. The American bald eagle, carrying the vector from the NASA logo it its beak, represents American astronaut Williams. The grey crane with its wings outstretched is for cosmonaut Skripotchka, who used the same bird in the patch of his first flight on board of the first in the current series of Soyuz spacecraft, on this one, the final Soyuz TMA-M. Patch designed by Luc van den Abeelen.

I S S EXPEDITION 48 / 49

From left to right: Kathleen Rubins, Anatoly Ivanishin, Takuya Onishi

Launch Date : July 7, 2016 , 01:36:40 UTC
Vehicle : SOYUZ MS - 01

Extended ISS Crew : Ivanishin (Russia), Kathleen Rubins (USA), Onishi (Japan)

Landing Date : October 30, 2016 , 03:58 UTC

ISS Crew - 48 : Cdr. Williams (USA), FE's Ovchinin (Russia), Skripochka (Russia), Ivanishin (Russia), Kathleen Rubins (USA), Onishi (Japan)

Summary:
Support of the Space Station functionality; operational support for loading / unloading and docking / undocking of Soyuz / Progress / Dragon spacecrafts; Installation of the **new International docking adapter IDA2** on PMA2 of ISS USOS Node2. Outfitting of adapters IDA2 and PMA2 (installation of flat reflector cover on PMA2, installation of semispherical reflector cover on PMA2, installation of semispherical reflectors on IDA2, installation of MLI on IDA2)

SOYUZ MS - 01

The Soyuz MS-01 patch introduces the latest modification of the Soyuz spacecraft, in service for nearly 50 years. The ship is shown approaching the International Space Station, ready to deliver a new crew and start another expedition on the orbital facility. The number of the ship is depicted in bold characters to emphasize a new beginning: one that might one day lead to a mission to Mars, the planet subtly hiding behind the zero.
Patch designed by Jorge Cartes of Spain.

I S S EXPEDITION 48

The central depiction of the International Space Station (ISS) is in recognition of the international achievement of designing, building and maintaining a world-class space laboratory. The orientation of the ISS represents the view seen by the Soyuz crewmembers as they approach the station. The blackness of space in the background portrays the limitless area that humankind has yet to explore. The efforts of the Expedition 47 crew will contribute to the growing body of knowledge and expertise that will allow us to extend human exploration beyond low-Earth orbit. The three blue colors are from the flags of the Expedition 47 crew's home countries (United States, Russia and the United Kingdom), representing a fundamental commonality among each of the international partner countries whom the crewmembers serve.

The Expedition-47 patch artwork was first shared by Tim Peake on Facebook on November 22, 2014. It was designed by Jorge Cartes and Tim Gagnon, working with Tim Kopra. It was based on an unfinished design made in September 2011 by Erik van der Hoorn for Expedition-41, which at that time was expected to be commanded by Fyodor Yurchikhin. In December 2011, Yurchikhin had been re-assigned to Expedition-37, a mission for which Jorge was already the main designer. As a result, the 'helmet design' was orphaned. Still, Erik contributed to Yurchikhin's new mission patch by drawing the ISS for it. Three years later, Tim and Jorge used both the helmet idea and a reflection of the Expedition-37 ISS for the ISS Expedition-47 patch. The original patch as approved by NASA, included a symmetrical '47'. When the Expedition-46 patch was rejected in October 2014 by Roscosmos, because the stylized '46' on it looked too much like a Ukranian political symbol, it was decided to change the '47' in the next patch as well.

The almost final version from March, 2014

The first version of the Expedition-47 patch with symmetrical '47', produced by AB Emblem. Also, the solar panels have gray outlines. Production of the patch was put on hold by NASA in October 2014; a first new – offical -batch was produced in February 2015.

I S S EXPEDITION 49

NASA description at the JSC website:
The 48th Expedition to the Internationl Space Station (ISS) marks nearly 16 years of continuous human presence at the orbital outpost. The elements of the crew patch include ISS solar arrays illuminated by the setting sun, the Earth's horizon at sunset, the Moon, and stars. The simple portrayal of the unique vantage point signifies the incremental contribution of a single international expedition off the planet to the larger endeavor of human space exploration and discovery.

Credit NASA:
The Expedition 48 Crew Patch depicts the iconic solar arrays of the International Space Station glowing in the sunlight with a star-filled sky, the Moon and Earth's backlit limb in the background, showing the thin atmosphere protecting planet Earth. Six stars connected to the glowing sunlight represent the six Expedition 48 crew members.

The ISS Expedition 48 insignia was designed by artists Tim Gagnon and Jorge Cartes working with commander Jeff Williams.
As one of the designers of this patch (Tim Gagnon) I can offer you what we intended to portray:
This design was actually inspired by two things. First and foremost the Expedition 22 patch that Jorge and I also designed, secondly the beautiful night time photography we been treated to from the ISS.

Jeff Williams was the commander of Expedition 22 as well. That patch showed the Sun shining brightly through the solar arrays over a daylit Earth. We wanted to show the opposite - the moment before orbital sunrise. The crew wanted to add the six rays of sunlight. Honestly I didn't think they were necessary.

Spacepatches.nl :
This is what was known before as the TsENKI patch, only TsENKI no longer orders and distributes these patches. Now, it has been ordered by Roscosmos, from the same manufacturer, so same quality of embroidery. A small number were produced for VIPs. We got the picture from a friend in Moscow.
Note: there is a mistake in the name of Rubins... New ones will not be produced, though.

I S S EXPEDITION 49 / 50

From left to right: Borisenko Andrei, Ryzhikov Sergei, Robert Kimbrough

Launch Date : October 19, 2016 , 11:05:14 UTC
Launch Vehicle : SOYUZ MS - 02

Extended ISS Crew : Borisenko (Rusia), Ryzhikov (Russia), Kimbrough (USA)

Landing Date : April 10, 2017 , 11:21 UTC

ISS Crew - 49 : Cdr. Ivanishin (Russia), FE's Kathleen Rubins (USA),Onishi (Japan), Kimbrough (USA), Borisenko (Rusia), Ryzhikov (Russia)

Summary:
Support of the Space Station functionality; operational support for loading / unloading and docking / undocking of Soyuz - / Progress - / Dragon - / Cygnus spacecrafts; performance of the science and application research program and experiments; implementation of the utilization program

SOYUZ MS - 02

The emblem of the crew of Soyuz MS-02 is made in a perfect round shape, symbolizing the perfection of everything created in the universe. In the center of the emblem there is an image of the sacred mount Tabor, located in the Holy Land. On top of the mountain is a source of light, symbolizing the sanctification that lights all Earthly things. From this source emerge three beams, representing the desire of the members of the crew to the space, and the intention to successfully complete all upcoming tasks. Mount Tabor is framed by the letter "F", depicted in the form of the orbit at the top of which is the ISS, and at the base the Soyuz spacecraft. Inside the letter "F" depicts the stars symbolize the surrounding space and three stars symbolize the crew, whose names are inscribed in stylized font in the outline of the emblem, along with the state flags of Russia and the USA, the name of the ship Soyuz MS-02 and the logo of Roscosmos. Also inside the letter "F" is “Favor”- the crew call sign, the main symbol of the logo. Patch designed by Serguei Rijikov together with Andrei Babkin.

I S S EXPEDITION 50 / 51

From left to right: Peggy Whitson, Oleg Novitskiy, Thomas Pesquet

Launch Date : November 17, 2016 , 20:20:13 UTC
Vehicle : SOYUZ MS - 03

Extended ISS Crew : Novitskiy (Russia), Pesquet (France), **and**
ISS Crew – 50 / 51 / 52 : Peggy Whitson (USA)

Landing Crew : Novitskiy (Russia), Pesquet (France)
Landing Date : June 2, 2017 , 14:10 UTC

ISS Crew - 50 : Cdr. Kimbrough (USA), FE's Borisenko (Rusia), Ryzhikov (Russia), Novitskiy (Russia), Pesquet (France), **and**
(ISS Crew – 50 / 51 / 52) Peggy Whitson (USA)

Summary:
Support of the Space Station functionality; operational support for loading / unloading and docking / undocking of Soyuz - / Progress - / Dragon / Cygnus - / HTV spacecrafts; performance of the science and application research program and experiments; implementation of the utilization program; performing four EVAs from the US Orbital Segmen.

SOYUZ MS - 03

The Soyuz MS-03 crew patch uses the classical shield shape; the origin of this type of emblem. The flags of the countries represented on this international space mission, the name of the spacecraft and the Roscosmos logo crown the design. Three animals symbolize each of the crewmembers occupying three quandrants, while the fourth one houses the spaceship, depicted flying towards the ISS's docking target. The eagle is taken from the state seal of Iowa, birth state of US crewmember Whitson, the Zubr buffalo from Belorussia represents the Russian commander's origins and the lion to show the Normandy origins of French astronaut Pesquet. Behind the crew's family names, a mountain in the Caucasus mountains is shown: Kazbek, which is the callsign for the crew of Soyuz MS-03. Patch designed by Luc van den Abeelen.

I S S EXPEDITION 49

The Expedition 49 patch shows the International Space Station (ISS) coming into view over an aurora extending past Earth's horizon. This depiction emphasizes the benefits to Earth of research conducted on the ISS as well as the global nature of the international partnerships vital to this endeavor. The green hue in the aurora is symbolic of life on our home planet. The crew of Expedition 49 will be working "Off the Earth, for the Earth."

It was designed at Johnson Space Center by graphics artist Cindy Bush.

I S S EXPEDITION 50

The Expedition 50 patch, designed by Sean Collins, encompasses the spirit of human exploration from previous missions to the moon to current exploration on the International Space Station (ISS). The red border symbolizes future human exploration of Mars – the Red Planet. Our home planet Earth is prominent in the patch to remind us that everything done on the mission is to help people on Earth – "Off the Earth, For the Earth." The background colors of red, white, and blue represent the national colors of all six crew members – United States, Russia, and France. The six stars represent the families of all six crewmembers. Finally, the numeral 50 signifies the 50th Expedition to the ISS.

From October 10, 20016 , 00:35 UTC to April 04, 2017 , 07:58 UTC

Duration 162 d , 07 h , 23 min

I S S EXPEDITION 51 / 52

From left to right: Fedor Yurchikhin, Jack Fischer

Launch Date : April 20, 2017 , 07:13:43 UTC
Launch Vehicle : SOYUZ MS - 04

Extended ISS Crew : Yurchikhin (Russia), Fischer (USA)

Landing Crew : Yurchikhin (Russia), Fischer (USA), **and**
ISS Crew – 50 / 51 / 52 : Peggy Whitson (USA)
Landing Date : September 3, 2017 , 01:22 UTC

ISS Crew - 51 : Cdr. Peggy Whitson (USA),
(ISS Crew – 50 / 51 / 52) FE's Novitskiy (Russia), Pesquet (France),
Yurchikhin (Russia), Fischer (USA)

Summary:
Support of the Space Station functionality; operational support for loading / unloading and docking / undocking of Soyuz - / Progress - / Cygnus spacecrafts; performance of two USOS-based EVA's; performance of the science and application research program and experiments; implementation of the utilization program

SOYUZ MS - 04

Soyuz MS-04 „launch“ crew patch :

The Soyuz MS-04 patch design is inspired on the iconic Apollo 12 patch. The classic sailing ship symbolizes the dream of flying in space. The vessel trails a stream of stars, as used in the patch for Expedition 52, which cosmonaut Yurchikhin will command during the second part of his stay on the International Space Station, symbolized by the single star to the left of the ship. Behind the ship in Earth-like colors is a depiction of Konstantin Tsiolkovski's design for a space station, while the border is similar in design to spaceship commander's Yurchikhin earlier Soyuz patches. His name and that of astronaut Fischer, together with the name of the spaceship incorporating the Roscosmos logo and the space fliers national flags occupy the border of the logo.

Designed by Luc van den Abeelen. © Roscosmos/spacepatches.nl.

SOYUZ MS - 04 , cont.

Soyuz MS-04 „landing“ crew patch :

Yurchikhin requested this version with the added name Whitson to be produced to commemorate the exceptional fact that he would be landing with an extra colleague: Peggy Whitson.
Hidden in the embroidery is the name 'Argo' in Greek letters;
the name Yurchikhin gave to his Soyuz ship.

SOYUZ MS - 04 , cont.

„official“

unofficial

One more set of unofficial patches for Fedor Yurchikhin and Jack Fischer — to honor Apollo-Soyuz legacy of coop.
Thanks to Blake with Blake Dumesnil Designs for rocking this!
To represent their launch together, Fischer and Yurchikhin worked with artists to design two distinct mission patches, one official and one unofficial, but both drawing inspiration from the emblems of historic past spaceflights.

I S S EXPEDITION 52 / 53

From left to right: Paolo Nespoli, Sergey Ryazansky, Randolf Bresnik

Launch Date : July 28, 2017 , 15:41:12 UTC
Vehicle : SOYUZ MS - 05
- 50th Soyuz to fly to the ISS since 2000 -

Extended ISS Crew : Bresnik (USA), Ryazansky (Rassia), Nespoli (Italy)

Landing Date : December 14, 2017 , 08:38 UTC

ISS Crew - 52 : (ISS Crew – 50 / 51 / 52) Cdr. Yurchikhin (Russia), FE's Fischer (USA), Peggy Whitson (USA), Bresnik (USA), Ryazansky (Rassia), Nespoli (Italy)

Summary:
Support of the Space Station functionality; operational support for loading / unloading and docking / undocking of Soyuz - / Progress - / Dragon - / Cygnus spacecrafts; performance of the science and application research program and experiments; implementation of the utilization program; performance of one RSOS-based EVA

SOYUZ MS - 05

At the end of October 2016, the crew of Soyuz MS-05 announced a competition to create designs for its mission emblem. By almost a month later, Roscosmos had received more than 700 submissions. On Wednesday (Dec. 21), the crew announced the winner! The design by Anastasia Sergeevna Timofeyeva (Yekaterinburg) will be used as the basis for the official Soyuz MS-05 patch. The Soyuz MS-05 crew patch features a nose-on view of the spacecraft, as it prepares to dock with the International Space station, with the Roscosmos logo just above it. In a protruding circle, the Greek god of the northern wind Boreas is shown, as this name is the call sign for the spaceship's crew. In the foreground, the navigational device of the docking cross is shown, as seen by the crew during the link-up with the orbital facility. The constellation of Scorpion is shown in the background, as a reference to the spaceship commander's star sign. Three stars in the background symbolize the crew members, whose names are shown in the border, with the corresponding national flags next to them. Designed by Anastasia Timofeyeva, finalized by Luc van den Abeelen. Copyright Roscosmos/spacepatches.nl

I S S EXPEDITION 51

From as early as the 11th century, coats of arms have been used as emblems representing groups as small as families to as large as countries.
The Expedition 51 patch is designed as a modernized international coat of arms, blending the traditional shield shape with our modernized symbol of achievement, the International Space Station. The background represents our home world and its inhabitants on the left, and outer space to the right. The bi-color International Space Station is the bridge between the two, symbolizing the benefits on Earth of space research, and at the same time our mission to explore deeper into space, on a path to further discovery and knowledge.

I S S EXPEDITION 52

Our planet is shown surrounded by an imaginary constellation shaped like a house, depicting the theme of the patch: “The Earth is our home.” It is our precious cradle, to be preserved for all future generations. The house of stars just touches the Moon, acknowledging the first steps we have already taken there, while Mars is not far away, just beyond the International Space Station, symbolized by the Roman numeral “LII,” signifying the expedition number. The planets Saturn and Jupiter, seen orbiting farther away, symbolize humanity’s exploration of deeper space, which will begin soon. A small Sputnik is seen circling the Earth on the same orbit with the ISS, bridging the beginning of our cosmic quest till now: Expedition 52 will launch in 2017, sixty years after that first satellite. Two groups of crew names signify the pair of Soyuz vehicles that will launch the astronauts of Expedition 52 to the Station.

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APPENDICES

From Thomas Pesquet:

Sewing our Expedition patch onto our Sokol suits on Sunday [April 30 2017].
Not our specialty, but Oleg and I got the job done!
We are getting the Sokol suits ready for our return to Earth soon,
and having the right patches is very important.

The suits keep us safe if there is ever a sudden loss of pressure or fire inside our Soyuz capsule. We don't really sew the patches into our suits, that would make holes and sharp needles are to be avoided on the Space Station.
Instead the patch and the suit have loops that we thread through with string and a blunt needle, tying a knot at the end.

Thomas Pesquet, ESA Astronaut, France
ISS-50/51 Flight Engineer

Oleg Novitsky, Test Cosmonaut, Russia
ISS-50/51 Flight Engineer

100 days in space has been logged by Thomas Pesquet, Oleg Novitskiv, and Peggy Whitson aboard the International Space Station

Based on the Shannon Walker photo above,
the "Mach 25" Soyuz patch has been in use since at least 2012..
Mike Fincke is the first to sport this patch, which replaces the space shuttle on the original with a Russian Soyuz and substitutes "MAXA" for "Mach."

100 days in space

MAXA 25

SOYUZ TMA - 13 M

Backup crew patch

(Kosmodrom - 2014 - Baikonur)

Unofficial commemorative patch
ISS EXPEDITION 46 / 47

Designer Tim Gagnon was particularly inspired by Tim Peake's mission, so much so that he created an unofficial commemorative patch to celebrate the flight.

ISS 10 YEARS AND COUNTING

RUSIAN VEHICLES

RSC STAR CITY

PKK ENERGIA

COMPLEX BAIKONUR

RUSSIAN SPACE AGENCY

SOYUZ COSMONAUTEN

SPACE SUIT M K C

V K D (E V A)

old Energia EVA department patch for the Orlan EVA suit

V K D (E V A)

new - 2013 - Energia EVA department patch for the Orlan EVA suit

SOYUZ TMA – 21 --- GAGARIN 50 ANNIVERSARY --- PATCH

Patch Tsenki : 50 YEARS of the GAGARIN FIRST SPACE FLIGHT
(1961 - 2011 „WOSTOK“ Ju. A. Gagarin)

RUSSIAN FLAG

A T T A C H M E N T

RUSSIAN EVA (VKD) PATCHES

Text by Jacques van Oene for Spaceflight Magazine, Vol. 56, January 2014

„They cannot yet be called a tradition, since they have appeared only sporadically, but during some Russian spacewalks from the ISS, Russian cosmonauts could be seen wearing embroidered patches designed specificaly for these short events.

Of cours, the first Russian spacewalker, Alexei Lonov, was already wearing a patch during his 1965 EVA. The same patch was also worn during the spacewalk by the crews of Soyuz-4 and Soyuz-5. Still, these were not specifically designed for the crews.

The first patch specifically designed was worn by Sergei Krikalev and John Phillips on August 18, 2005. It had been designed by Alex Panchenko. The bullion (metallic wire on felt) patches that Krikalev and Philips wore on the right shoulders of there Orlan suits, showed a spacewalker clad in an Orlan spacesuit with the designation „VKD MKC – XI „ (ISS-EVA-11). Although both men were wearing a red striped Orlan suit, using the traditional colour codes for Russian spacewalkers. Krikalev was wearing a red bordered version of the patch; Philips used a blue bordered patch.

The crew of ISS-13 – Pavel Vinogradov and Jeffrey Williams – had similar patches available, this time more traditionally machine embroidered. There is no evidence that these were worn during their spacewalk on June 2, 2006. Instead, their suits were decorated with the generic Expedition-13 design. The same holds true for an EVA made during Expedition-14 by Michael Lopez-Alegria and Michail Tyurin. An EVA-patch was available, but both men were wearing the official Expedition-14 logo during their outings together on November 23, 2006 and February 22, 2007.

It was during Expedition-15 that the idea of actually wearing the EVA-patches was revealed. For Russian EVA´s-18 and -19, on May 30, and June 6, 2007, Fyodor Yurchkin and Oleg Kotov were wearing adapted version of their Expedition-15 logo (which had been designet by Yurchkin, a patch collector himself).

The red bordered patches – for Yurchkin – and the blue bordered ones – for Kotov – were again supplied by Alex Panchenko and sported the name of both cosmonauts and the actual EVA (VKD) number. A pair of patches were also designed for EVA-20, but this spacewalk was never carried out by these two men.

With Alex Panchenko disappearing from the Russian patch scene following Soyuz-TMA-11 / Expedition-16, specific Russian EVA-patches also disappeard.

It was not until Expedition-24, when Yurchkin was flying to space again, that they re-emerged. Following the idea, used for Expedition-15, red and blue versions based on the official Expedition-24 and -25 insignias were created by Yurchkin and produced by Spacepatches.nl. These were worn during Rusian EVA-25 – Yurchikhin and Kornienko ; July 26, 2010 – and EVA-26 - Yurchikhin and Skripochka ; November 15, 2010 –. Again, a third pair designed for EVA-27 remained unused. For patch collectors, it could not have been a surprise that on the next Expedition which involved Fyodor Yurchkin (Expedition-36) patches along the same line again made it on the Orlan suits.

But first, an EVA-version of Paul Fjelt´s Expedition-35 patch was worn by Pavel Vinogradov and Roman Romanenko during their April 19, 2013, EVA-32 spacewalk. These patches, - designed by Luc van den Abeelen of Spacepatches.nl - , were a gift from Yurchikhin to his friends (see example 1).

Fyodor Yurchkin and Aleksandr Misurkin proudly wore a red and a blue bordered EVA-33 patch during their June 24, 2013 EVA. This time, it was not based on the official mission emblem, but on an early Expedition-36 version designed by Vinogradov and again produced by Spacepatches.nl.

Expedition-36 crewmembers Yurchkin and Misurkinare also scheduled to perform russian EVA-34 and -35 in August 2013. During these spacewalks, the same Expeddition-36 base designe will be used, showing the designations EVA-34 and EVA-35 respectively.

On November 9, during the 36th Russian spacewalk (VKD) outside the ISS, both Oleg Kotov and Sergei Ryazanskiy were wearing a patch, designed by Luc van den Abeelen (with permission from the Russian Olympic Committee to use the image of the torch) (see example 2).“

Example one: Patch for Russian EVA-32

Example two: Patch for Russian EVA-36

SOYUZ ISS ENERGIA LOGOS

These logos for the Soyuz – ISS - missions are probably from Energia and are normaly used for covers and other souvenirs (see examples).

Soyuz TM-34

Soyuz TMA-3

Soyuz TMA-6

Soyuz TMA-8

Soyuz TMA-9

Soyuz TMA-11

Soyuz TMA-15

Soyuz TMA-20

Soyuz TMA-03M

Soyuz TMA-09M

SOYUZ ISS ENERGIA LOGOS , cont.

ISS - Soyuz Mission Crewmember and Spacecraft changeover logos :
- *Example* -

* *

ISS - Soyuz Mission Spacecraft changeover logos :
- *Example* -

Soyuz TMA-1 / ISS Expedition 5 / Fourth Russian Visiting Crew :

October 30, 2002 : The mission served the planned exchange of the previous "lifeboat" of the ISS; Soyuz TM - 34. This replacement is required because of the limited service life of a Soyuz spacecraft, which lasts about six months.

STS-113 / Endeavour / ISS-16-11 A :

November 24, 2002 : The main mission tasks of STS-113 were the exchange of the ISS crew and the delivery and installation of the third grid element - Portside One P1 – of the ISS, Kenneth Bowersox, Nikolai Budarin and Donald Petitt formed the new **ISS Expedition 6**. Bowersox, Budarin and Petitt have landed on Soyuz TMA-1.

Soyuz TMA-2 / ISS Expedition 7 :

April 26, 2003 : The spacecraft transported **ISS Expedition 7**, Yuri Malenchenko and Ed Lu into orbit. After the loss of the space shuttle Columbia in February 2003, the space shuttle flights were temporarily suspended. To save resources, all subsequent crews were reduced to two persons and all fudure flights were conducted by Soyuz rocket and Soyuz spacecraft.

* *

Soyuz TM-33 / Second Russian Visiting Crew :

Launch Date : October 21, 2001 Launch Vehicle : SOYUZ TM - 33

Landing Date : October 31, 2001 Landing Vehicle : SOYUZ TM - 32

Soyuz TM-33 Crew : Afanasiev (Russia), Claudie Haignere (France), Kozeev (Russia)

Planned replacement of Souyz TM-32 which has been functioning as a crew rescue vehicle within the International Space Station (ISS) since April 30, 2001.
Return of Visiting Crew 2 on-board Soyuz TM-32.

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БОРИСЕНКО РЫЖИКОВ
KIMBROUGH
50
WHITSON
PESQUET НОВИЦКИЙ

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KOMAROV · GIVENS · WILLIAMS · ADAMS · LAWRENCE · ГАГАРИН · ДОБРОВОЛЬСКИЙ · ВОЛКОВ · CLAUSEN · BROWN · RAMON · CLARK · CHAWLA · ANDERSON · MCCOOL · HUSBAND · CARTER · MCAULIFFE · JARVIS · MCNAIR · RESNIK · ONIZUKA · SMITH · SCOBEE · FREEMAN · SEE · BASSETT · GRISSOM · WHITE · CHAFFEE · БОНДАРЕНКО
FINAL FLIGHT
THEY SLIPPED THE SURLY BONDS OF EARTH... TO TOUCH THE FACE OF GOD

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S O U R C E S

NASA
ENERGIA / ROSCOSMOS
ESA
SPACEPATCHES . NL
A - B EMBLEME
COLLECTSPACE
SPACEFACTS
SPACESTORE
ANDROMEDA 24 . DE
USSR – RUSSIAN AVIATION AND SPACE COLLECTABLES,
- Alex Panchenko -
Mr. Harald Kraenzel
Wikipedia

"http://www.crewpatches.com/crewpatches_intro.shtml"
or
"http://www.crewpatches.com/crewpatches_menu.shtml"

all data via „INTERNET“