

The Crew

STS-128 Crew – ESA Astronauts
Christer Fuglesang – Mission Specialist (EVA Astronaut)



ESA astronaut Christer Fuglesang during training. (Image: NASA)

Personal data

Born 18 March 1957 in Stockholm, Sweden. Married to the former Elisabeth Walldie. They have three children. He enjoys sports, sailing, skiing, frisbee, games and reading.

Education

Graduated from Bromma Gymnasium, Stockholm in 1975 and received a Master of Science degree (Engineering Physics) from the Royal Institute of Technology (KTH), Stockholm in 1981. Received a Doctorate in Experimental Particle Physics in 1987 and became a Docent in Particle Physics in 1991 at the University of Stockholm. He was appointed Affiliated Professor at KTH in 2006.

Special honours

He was awarded an Honorary Doctorate from Umea University, Sweden in October 1999, an Honorary Doctorate from the University of Nova Gorica, Slovenia in 2007, the NASA Space Flight Medal in 2007 and H.M. The King's Medal in Stockholm in 2007.

Experience

As a graduate student, Fuglesang worked at CERN (European Research Centre on Particle Physics) in

Geneva on the UA5 experiment, which studied proton-antiproton collisions. In 1988 he became a Fellow of CERN, where he worked on the CPLEAR experiment studying the subtle CP-violation of Kaon-particles. After a year he became a Senior Fellow and head of the particle identification sub-detector. In November 1990, Fuglesang obtained a position at the Manne Siegbahn Institute of Physics, Stockholm but remained stationed at CERN for another year working towards the new Large Hadron Collider (LHC) project. Since 1980, (when stationed in Sweden) Fuglesang taught mathematics at the Royal Institute of Technology (KTH).

In May 1992, Fuglesang was selected to join the Astronaut Corps of ESA based at the European Astronaut Centre (EAC) in Cologne, Germany.

In 1992 he received an introductory training programme at EAC and a four-week training programme at TsPK (Cosmonaut Training Centre) in Star City, Russia, with a view to future ESA-Russian collaboration on the Mir Space Station. In July 1993 he completed basic training at EAC.

In May 1993, Fuglesang and fellow ESA astronaut, Thomas Reiter, of Germany, were selected for the Euromir 95 mission and commenced training at TsPK (Moscow) in preparation for their onboard engineer tasks, extra-vehicular activities (spacewalks) and operation of the Soyuz spacecraft. The Euromir 95 experiment training was organised and mainly carried out at EAC.

On 17 March 1995 he was selected as member of Crew 2 for the Euromir 95 mission, joining Genadi Manakov and Pavel Vinogradov. During the mission, which lasted from 3 September to 29 February 1996, Fuglesang was the prime Crew Interface Coordinator (CIC). From the Russian Mission Control Centre (TsUP) in Kaliningrad, he was the main contact with ESA astronaut Thomas Reiter in Mir, and acted as coordinator between Mir and the Euromir 95 Payloads Operations Control Centre, located in Oberpfaffenhofen, Germany, and the project management.

Between March and June 1996, he underwent specialised training in TsPK on Soyuz operations for de-docking, atmospheric re-entry and landing. Christer Fuglesang entered the Mission Specialist Class at NASA/Johnson Space Center, Houston,

The Crew

in August 1996 and qualified for flight assignment as a Mission Specialist in April 1998.

From May to October 1998, he resumed training at TsPK on Soyuz-TM spacecraft operations for de-docking, atmospheric re-entry and landing. He was awarded the Russian 'Soyuz Return Commander' certificate, which qualifies him to command a three-person Soyuz capsule on its return from space.



ESA astronaut Christer Fuglesang attached to the ISS robotic arm during an EVA as part of the STS-116 mission in December 2006. (Image: NASA)

In October 1998 he returned to NASA-JSC and was assigned to technical duties in the Astronaut Office Station Operations System Branch on Russian Transfer Vehicles (i.e. Soyuz/Progress). Later he worked as prime Increment Crew Support Astronaut for the Expedition Corps of the 2nd International Space Station increment crew.

Christer Fuglesang has continued with some scientific work and was involved with the SilEye experiment which investigated light flashes in astronauts' eyes on Mir between 1995 and 1999. This work is continuing on the ISS with the Alteino

detector and the ALTEA facility. He has also initiated the DESIRE Project to simulate and estimate the radiation environment inside ISS. In November 2006 Fuglesang was appointed affiliated professor at the Royal Institute of Technology (KTH).

Spaceflight Experience

From 9 to 22 December 2006, Christer Fuglesang flew as Mission Specialist on board Space Shuttle Discovery for flight STS-116 to the International Space Station. He became the first Swedish astronaut to fly in space. During his mission, named Celsius, Fuglesang participated in two spacewalks, or Extra Vehicular Activities (EVAs), to attach new hardware to the Space Station and to reconfigure the Station's electrical power system. He was later assigned to participate in an extra unscheduled spacewalk to help free the Station's P6 solar array which had become jammed during retraction. His combined EVA time is 18 hours 14 minutes.

Current assignment

ESA astronaut Christer Fuglesang will be undertaking the European Alissé Mission and, as such, is assigned as a Mission Specialist on board the 13-day STS-128 flight to the ISS. Three spacewalks are planned in total, out of which Christer Fuglesang will undertake two. His EVA tasks will include replacing an old ammonia tank assembly, laying/connecting cabling for the arrival of the European-built Node 3 in February 2010, replacing a failed Rate Gyro Assembly, which helps to control the orientation of the ISS and installation of GPS antennae.



ESA astronaut Christer Fuglesang, during STS-128 virtual reality training at the Johnson Space Center on 20 May 2009. (Image: NASA)

The Crew

STS-128 Crew: NASA Astronauts Frederick Sturckow - Commander



STS-128 Commander Frederick Sturckow. (Image: NASA)

Born on August 11, 1961, Sturckow is married, enjoys flying and physical training, and has a Bachelor of Science degree in Mechanical Engineering. Sturckow has had a distinguished career as a US Naval and Air Force pilot including active duty during the Gulf War.

After selection by NASA in 1994, he held various posts within NASA's Astronaut Office including Chief of the Astronaut Office CAPCOM Branch, and Chief of the Astronaut Office ISS Branch.

He is a veteran of three ISS Shuttle assembly flights. He was Shuttle pilot on the STS-88 mission in December 1998, which was the first International Space Station assembly mission, during which the US Unity Node was mated to the Russian Zarya module. He was again pilot on the STS-105 mission in August 2001, which exchanged the Expedition 2 Crew for the Expedition 3 Crew, attached the Leonardo Multi-Purpose Logistics Module to the ISS, and transferred over 2.7 metric tons of cargo to the station. He was also the Commander for the STS-117 mission in June 2007, which installed the S3/4 Truss Segment to the ISS and exchanged an Expedition crew member.

Kevin Ford - Pilot



STS-128 Pilot Kevin Ford. (Image: NASA)

Born on 7 July, 1960 Ford is married, has two children, and has a Ph.D in Astronautical Engineering. He completed primary Air Force jet training in 1984. Ford trained in the F-15 Eagle and had assignments in Germany and Iceland between 1984 and 1989. After spending 1990 as a student at the United States Air Force Test Pilot School he flew flight test missions in the F-16 at Eglin Air Force Base, Florida from 1991-1994.

Following a three-year doctorate he was assigned to the Air Force Test Pilot School where he served as the Director of Plans and Programs, taught academics, and instructed students on flight test techniques. He is a certificated flight instructor in airplanes and gliders.

Selected as a pilot by NASA in July 2000, Ford has fulfilled various roles in NASA's Astronaut Office including Director of Operations at the Gagarin Cosmonaut Training Center in Star City, near Moscow in 2004 and thereafter as Space Shuttle and ISS CAPCOM in the Mission Control Center, working the STS-115, STS-116, STS-117, STS-120, STS-122, and STS-123 Shuttle missions, as well as ISS Expedition Stage Operations. This will be Ford's first space mission.

The Crew

Patrick Forrester – Mission Specialist



STS-128 Mission Specialist Patrick Forrester. (Image: NASA)

Born on 31 March 1957 Forrester is married, has two children, and enjoys baseball and running. He has a Master degree in mechanical and aerospace engineering and is a Master Army Aviator, having flown in over 50 different aircraft. He has fulfilled various Army posts as an instructor pilot, platoon leader, aviation company operations officer, assault helicopter battalion operations officer, flight test engineer and as the research and development coordinator.

Designated an experimental test pilot in 1992 he was assigned to NASA as an aerospace engineer in July 1993 and has fulfilled various functions from testing Shuttle flight software to being CAPCOM for both ISS and shuttle missions.

Forrester is a veteran of two spaceflights. In August 2001 he performed two spacewalks during the STS-105 mission, which exchanged ISS Expedition Crews (2 for 3) and brought 2.7 tonnes of cargo to the ISS in a Multi-Purpose Logistics Module. Forrester was prime robotics operator for its installation. He also performed two spacewalks during the STS-117 in June 2007, which installed the S3/4 truss segment with solar arrays on the ISS and exchanged an expedition crew member.

José Hernández – Mission Specialist



STS-128 Mission Specialist José Hernández. (Image: NASA)

Born 7 August 1962 Hernandez has a Masters in Electrical and Computer Engineering. From 1987-2001 he was based at the Lawrence Livermore National Laboratory in California. This included roles as an Electronics Engineer (1987-1994) covering refined signal and image processing skills and developing quantitative x-ray film imaging analysis techniques. After a role as Group Leader for staff supporting chemistry and materials science research activities he was a Deputy Program Manager, responsible for the implementation of a US/Russian agreement for the U.S. purchase of highly enriched uranium and a Program Manager on a two-year assignment at the U.S. Department of Energy, managing the integration and allocation of Department of Energy assets and expertise.

Hernandez joined NASA in 2001 as a Materials Research Engineer, developing, evaluating, and selecting advanced structural materials for aircraft and spacecraft structures. After becoming Chief of the Materials, and Processes Branch in 2002 within the Structural Engineering Division he was selected by NASA as an astronaut candidate in May 2004. After initial training Hernandez was assigned to the Astronaut Office supporting Shuttle launch and landing preparations.

The Crew

John Olivas – Mission Specialist (EVA Astronaut)



NASA astronaut John Olivas during EVA training. (Image: NASA)

Born in 1966, Olivas is married, has 5 children, and enjoys running, weightlifting, hunting, fishing and surfing. With a doctorate in mechanical engineering and materials science he has had various roles as a mechanical/materials engineer. He worked at the US Jet Propulsion Laboratory as a senior research engineer, making advancements in the evaluation of microelectronics and structural materials for use in space, and then as Program Manager in the evaluation of the reliability and susceptibility of microelectronics for use in future NASA projects.

Olivas was selected by NASA in 1998. After initial training he worked in the Robotics and EVA Branches. He was lead for the Special Purpose Dexterous Manipulator and Mobile Transporter (1999-2002) and supported research into developing on-orbit shuttle repair techniques. In 2006, he served as lead of the Hardware Integration Section of the Space Station Branch. Olivas carried out two spacewalks during the STS-117 mission in June 2007, which delivered the second starboard truss segment, and the third set of U.S. solar arrays to the ISS. The mission also included the first ever on-orbit EVA repair to the Space Shuttle. The mission also delivered and returned with an expedition crew member. Olivas will undertake all three of the STS-128 EVAs.

Nicole Stott – Mission Specialist (EVA Astronaut) and ISS Flight Engineer



NASA astronaut Nicole Stott during EVA training. (Image: NASA)

Stott was born in Albany, New York, enjoys flying, skiing, SCUBA diving, woodworking, painting, and gardening and is an instrument rated pilot. She has a Bachelor's degree in Aeronautical Engineering and a Masters degree in Engineering Management

After working as structural design engineer Stott joined NASA at the Kennedy Space Center in 1988, Florida, as an operations engineer in the Orbiter Processing Facility and held a variety of positions in Shuttle processing including Vehicle Operations Engineer; NASA Convoy Commander; Shuttle Flow Director for Endeavour; and Orbiter Project Engineer for Columbia.

She was also NASA Project Lead for the ISS truss elements under construction at the Boeing Space Station facility. In 1998 she joined the Johnson Space Center as a Flight Simulation Engineer. Stott was selected by NASA as a mission specialist in July 2000. After training she fulfilled various roles including that of an ISS CAPCOM.

Stott will replace NASA astronaut Timothy Kopra as an ISS Expedition 20 Flight Engineer. She is scheduled to return to Earth in November on board Shuttle flight STS-129. Stott will undertake one of the three STS-128 EVAs.

The Crew

ISS Expedition Crew: ESA Astronauts

Frank De Winne - ISS Expedition 20 Flight Engineer, ISS Expedition 21 Commander



ESA astronaut and ISS Flight Engineer Frank De Winne undertaking duties on the ISS on 15 June 2009 (Image: ESA)

Spaceflight Experience: Odissea to OasISS

Frank was launched to the ISS on 27 May 2009 on board the Soyuz TMA-15 and is currently an ISS Expedition 20 Flight Engineer. He is also taking part in the European OasISS mission. Frank is scheduled to take over as Commander of Expedition 21 in October. This is his second spaceflight after taking part in the Odissea mission to the ISS from 30 October - 10 November 2002. As part of the Odissea mission he served as Flight Engineer on the newly designed Soyuz TMA-1 spacecraft during ascent and on a Soyuz TM spacecraft during re-entry. A prime task of the mission was to replace the Soyuz TM spacecraft, which was acting as the Station's lifeboat in case of an emergency.

De Winne performed a full package of scientific experiments, technology demonstrations and education activities during the Odissea mission, which was sponsored by the Belgian Federal Office for Scientific, Technical and Cultural Affairs. This

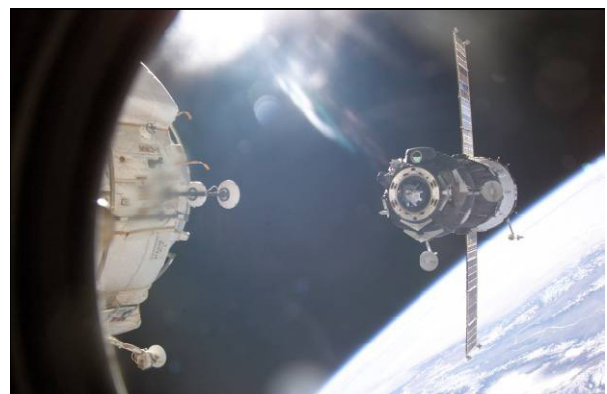
included use of the Microgravity Science Glovebox, which at the time was a new research facility on the ISS designed and developed in Europe.



Frank De Winne working with the Microgravity Science Glovebox during the Odissea Mission in 2002. (Image: ESA)

Personal data, education and awards

Frank was born in Ghent, Belgium on 25 April 1961. He is married, has three children and enjoys football, small PC applications and gastronomy. With a Masters degree in telecommunications and civil engineering, De Winne has received many notable awards and honours including being decorated as an Officer of the Order of Oranje Nassau by the Queen of the Netherlands for leadership during Operation Allied Force (July 1999) and the 'Medal of Friendship' from the Russian Federation. De Winne is also a Goodwill Ambassador for UNICEF Belgium.



Soyuz TMA-1 during docking with the International Space Station on 1 November 2002. (Image: NASA)

The Crew

Experience (1986 – 2000)

After completing pilot training with the Belgian Air Force, in 1986, Frank De Winne was an operational pilot on Mirage V aircraft and worked in the Mirage Safety Improvement Programme.

In 1992, he graduated from the Empire Test Pilots School in Boscombe Down, England, where he was awarded the McKenna Trophy. In December that year he was appointed to the Test and Evaluation branch of the Belgian Air Force where he was involved in activities and programmes flying in a variety of different aircraft including F16's and C130's.

From 1994 to 1998 de Winne fulfilled different Air Force functions including that of senior test pilot. This included detachment to Edwards Air Force Base, California by the European Participating Air Forces to work on the mid-life update of the F16 aircraft; and responsibility for all test programmes and for all pilot-vehicle interfaces for future aircraft/software updates for the Belgian Air Force.

From August 1998 to January 2000, Frank De Winne was the Squadron Commander of the 349th Fighter Squadron at Kleine Brogel Airbase, Belgium and was detachment commander of the Deployable Air Task Force in the NATO Allied Force campaign.



ESA astronaut Frank De Winne carrying out maintenance on an ISS treadmill with Canadian Space Agency astronaut Robert Thirsk on 3 June 2009. (Image: NASA)

Frank De Winne has logged more than 2300 hours flying time on several types of high-performance aircraft including Mirage, F16, Jaguar and Tornado.

ESA Experience

In January 2000, Frank De Winne joined ESA's European Astronaut Corps based in Cologne, Germany. After providing technical support for the X38 Crew Return Vehicle project division, De Winne started training at the Gagarin Cosmonaut Training Centre in Star City near Moscow in August 2001 in advance of the Odissea Mission.

After his spaceflight, Frank De Winne supported ESA's human spaceflight activities including development and qualification of the Columbus laboratory and participating in the establishment of the White Paper on European Space policy with the European commission.



ESA astronaut Frank De Winne, using the European Neurospat hardware to perform experiment activities on the ISS on 4 June 2009. (Image: NASA)

From 2005, Frank De Winne started preparing as backup for ESA astronaut Léopold Eyharts for the ISS mission to deliver and commission the Columbus laboratory, undergoing additional training on the Shuttle, the ISS and on the European Columbus laboratory and Automated Transfer Vehicle (ATV). The Columbus mission was launched on 7 February 2008. In January 2008, Frank De Winne was assigned his current task as a prime crew member of a long duration ISS Expedition.

Full biography of Frank De Winne available at:
http://www.esa.int/esaHS/astro_nauts.html

The Crew

ISS Expedition Crew: Non-ESA Astronauts

Gennady Padalka

ISS Expedition 20 Commander

Padalka is the current ISS Expedition 20 Commander, a Colonel of the Russian Air Force and Test Cosmonaut of the Yuri Gagarin Cosmonaut Training Centre. Born in 1958 he is a veteran of two long-duration space missions: as Commander of the Mir Expedition 26 (August 98 – February 99) and ISS Expedition 9 (April – October 2004) crews. During the latter mission he performed four spacewalks. Padalka is a First Class Pilot and an Instructor of General Parachute Training. He is married with three daughters. He was launched to the ISS on Soyuz TMA-14 on 26 March 2009 together with Michael Barratt and spaceflight participant Charles Simonyi. He is also scheduled to return on Soyuz TMA-14 in October.



ISS Commander Gennady Padalka taking a photo of a plant growth experiment in the Zvezda Service Module on 13 May 2009 (Image: NASA)

Michael Barratt

ISS Expedition 20 Flight Engineer

NASA astronaut Michael Barratt is currently on the ISS as an Expedition 20 Flight Engineer. Born on 16 April 1959, Barratt is married and has five children. In 1992 he was assigned as NASA Flight Surgeon working in Space Shuttle Medical Operations, and in 1994 on the joint US/Russian



ISS Flight Engineer Mike Barratt working by the European-built Microgravity Science Glovebox in ESA's Columbus laboratory on 16 May 2009 (Image: NASA)

Shuttle – Mir Program. From July 95 through July 98, he served as Medical Operations Lead for the International Space Station and thereafter served as lead crew surgeon for the first Expedition Crew to ISS until selected as an astronaut candidate. He was launched to the ISS on Soyuz TMA-14 on 26 March 2009 together with Gennady Padalka and spaceflight participant Charles Simonyi. He is also scheduled to return on Soyuz TMA-14 in October.



ISS Flight Engineer Roman Romanenko, prepares to use a High Definition Video camera in the Zvezda Service Module of the International Space Station on 21 June 2009. (Image: NASA)

Roman Romanenko

ISS Expedition 20/21 Flight Engineer

Romanenko is currently on the ISS as an Expedition 20 Flight Engineer. And is a Major of

The Crew

the Russian Air Force and Test Cosmonaut of the Yuri Gagarin Cosmonaut Training Centre. Born on 9 August 1971 he is married and has one son. Following graduation from pilot school in 1992 Romanenko served as a second commander in the Air Force. He flew L-39 and Tu-134 aircraft and is a Class 3 Air Force pilot. Following selection in 1997 Romanenko qualified as a test cosmonaut in November 1999. Romanenko trained as backup ISS Expedition 15 Commander. Expedition 15 took place from April – October 2007. He was launched to the ISS on Soyuz TMA-15 with Frank de Winne and Robert Thirsk on 27 May 2009. Romanenko is scheduled to return with Frank de Winne and Robert Thirsk in November 2009 on the Soyuz TMA-15 spacecraft.

Programme in 1983, Thirsk was involved in various research and education projects for the agency. He was a payload specialist on the Life and Microgravity Spacelab mission in 1996 on board the STS-78 Space Shuttle. The mission was devoted to the study of life and materials sciences. Thirsk served as backup for ESA astronaut Roberto Vittori who undertook the Eneide mission to the ISS in April 2005. During the 10-day mission, Thirsk worked as Crew Interface Coordinator at the Columbus Control Centre in Germany. Thirsk was launched to the ISS on Soyuz TMA-15 with Frank de Winne and Roman Romanenko on 27 May 2009. He is scheduled to return in November on the same spacecraft with the same crew.



Canadian Space Agency astronaut and Expedition 20 Flight Engineer Robert Thirsk inserting samples into the European-built Minus Eighty degree Laboratory Freezer for the ISS MELFI in the Japanese Kibo laboratory. (Image: NASA)

Robert Thirsk **ISS Expedition 20/21 Flight Engineer**

Canadian Space Agency astronaut Robert Thirsk was born on 17 August 1953 and is currently on the ISS as an Expedition 20 Flight Engineer. Following his selection for the Canadian Astronaut

Timothy Kopra **ISS Expedition 20 Flight Engineer**

NASA astronaut Timothy Kopra became an ISS Expedition 20 Flight Engineer after arriving on Shuttle flight STS-127 on 17 July 2009. Born on 9 April 1963, Kopra is married and has two children. He has had an extensive military career starting from 1985, which included active service and service as an experimental test pilot. Kopra was assigned to NASA at the Johnson Space Center in September 1998 as a vehicle integration test engineer and was selected as an astronaut in July 2000. Kopra began training for a long duration space flight mission in July 2005. He will return on Shuttle flight STS-128 currently scheduled for launch in August. Kopra replaced Expedition 20 Flight Engineer Koichi Wakata who returned to earth on the descent leg of the STS-127 flight.



NASA astronaut Timothy Kopra during spacewalk training near the Johnson Space Center on 9 October 2008. (Image: NASA)