Progress to Launch to Space Station

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Backdropped by the blackness of space, an unpiloted Progress supply vehicle approaches the International Space Station in May 2007. Credit: NASA

A new Progress cargo carrier is scheduled to launch to the International Space Station at 1:34 p.m. EDT Thursday, Aug. 2, with more than 2.5 tons of fuel, air, water and other supplies and equipment aboard.

The station's 26th Progress unpiloted spacecraft will bring to the orbiting laboratory almost 1,600 pounds of propellant, more than 100 pounds of air and oxygen, more than 465 pounds of water and 2,954 pounds of dry cargo. Total cargo weight is 5,111 pounds.

Among the dry cargo are spares for Russian computers that had problems during the STS-117 mission of Atlantis to the station in June.

P26 will launch from the Baikonur Cosmodrome in Kazakhstan. It is scheduled to dock with the station Sunday, Aug. 5, at about 2:38 p.m.

The spacecraft will use the automated Kurs system to dock at the aft port of the Zvezda Service Module. Expedition 15 Commander Fyodor Yurchikhin will be at the manual TORU docking system controls, should his intervention become necessary.

Once Expedition 15 crew members, Yurchikhin and flight engineers Oleg Kotov and Clay Anderson, have unloaded the cargo, P26 will be filled with trash and station discards. It will be undocked from the station with its load of trash and deorbited, to burn in the Earth's atmosphere.

The Progress is similar in appearance and some design elements to the Soyuz spacecraft, which brings crew members to the station, serves as a lifeboat while they are there and returns them to Earth. The aft module, the instrumentation and propulsion module, is nearly identical.

But the second of the three Progress sections is a refueling module, and the third, uppermost as the Progress sits on the launch pad, is a cargo module. On the Soyuz, the descent module, where the crew is seated on launch and which returns them to Earth, is the middle module and the third is called the orbital module.

Source: NASA