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Space Failures Raise Uneasy Questions

By Alexandra Odynova

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U.S. astronaut Daniel Burbank training Thursday at the Star City center. **Sergei Remezov**

This year, Russia has celebrated the 50th anniversary of Yury Gagarin's first flight with much pomp. But a series of spacecraft-related incidents over the past nine months is raising concerns that something has gone wrong in the space industry.

As of Sunday, the wreckage of the Progress M-12M cargo ship — parts of which rained down on Siberia on Wednesday — remained missing. But officials said the search would go on until Tuesday despite suspicions that the ship burned up in the atmosphere.

This was the first Progress to fall back to Earth in the ship's 30-plus years of operation — but also Russia's second rocket failure in a week and the fourth since December.

Analysts warned against generalizing about the incidents, which are inevitable in an industry as complex as space flight. But they acknowledged that the system is still recovering from a 15-year slump after the Soviet collapse and lacks a cohesive revamp plan.

The recent string of incidents began when three Glonass-M navigation satellites launched from the Kazakh-based Baikonur Cosmodrome plummeted into the Pacific in December due to a programming error. Military satellite Geo-IK2, which blasted off from the Plesetsk pad in February, ended up in the wrong orbit after a booster failed. Last week, the Express-AM4 telecommunications satellite also wound up on the wrong orbit for reasons that remain under investigation.

As for the Progress, it was the 44th launch of the expendable unmanned freighter and the first crash since it went unto operation in 1978.

It was also the 21st of 769 flights for the Soyuz-U launch vehicle that ended in an accident.

Officials searched for clues over the weekend into what caused the Progress to crash and burn five minutes into flight. The Federal Space Agency spoke about a malfunction of an engine made at a Voronezh-based factory, but did not elaborate.

More details were expected Monday, RIA-Novosti reported, citing an unidentified member of a commission investigating the incident. Prosecutor General Yury Chaika on Thursday ordered a separate check into the manufacturing chain for the lost Progress.

The incident is especially embarrassing because Soyuz rockets are now the sole means for crew members to reach — and leave — the International Space Station.

The crashed Progress was carrying food and fuel to the station, as well as a dozen paintings by celebrity artist Alexander Shilov Jr. Ground control said the current mission still has sufficient supplies for several months.

The next crew is scheduled to blast off for the international space station in September and is currently training for the mission at the Star City space center outside Moscow.

The Progress failure triggered a wave of talk about how far the space program has fallen since legendary Soviet days. But Igor Lisov, an expert with the Novosti Kosmonavtiki magazine, said that despite the setbacks, "it's too early to speak about the degradation" of Russia's space industry.

"Every accident has its cause, and they shouldn't be generalized," Lisov said in a telephone interview.

Within the industry, spacecraft accidents are considered unavoidable, with one out of every 100 launches expected to fail. But in Russia, the statistics might be augmented due to human factor.

Abandoned in the 1990s by the cash-strapped government, its sole client in Soviet times, the country's industry had to starve through a difficult decade. In the 2000s, state orders poured back in, fueled by oil revenues — but investment, though generous, was largely ill-spent.

"After 15 years of wretched existence, the rocket and space industry got the money for a good program," Lisov said, adding that the development program still has not been created.

"A simple money infusion won't impact anything without reforms," Andrei Ionin, a member of the Russian Tsiolkovsky Academy of Cosmonautics, said in an interview with Expert television last week.

Moreover, there is no manpower on which to spend the funds. Space enterprises have lost much of their skilled work force during the post-Soviet lull, and now they may require a decade or more to train new employees.

For space engineers, for one, it will take about 20 years to train a new generation, provided that young engineers can be motivated to work in the industry, Ionin said. This is not a given because large governmental spending has so far had little impact on modest salaries in the industry.

"There's a general consensus that a specialist in a space industry enterprise shouldn't be getting the salary of an ice cream vendor," Lisov said. He said the average engineer's salary is under 30,000 rubles ($1,000) per month.

The government is not really motivated to push for change.

"Astronautics has lost its exclusive importance for the government, like it had 30 and 40 years ago, when it was a key driving force for science and technology," Yury Krash, another member of the Russian Tsiolkovsky Academy of Cosmonautics, said in an interview with Vesti FM radio on Thursday.

In April, a launch failure prompted Prime Minister Vladimir Putin to fire Federal Space Agency chief Anatoly Perminov. He was replaced with First Deputy Defense Minister Vladimir Popovkin.

On Thursday, Putin called for tougher controls over space technology, while Popovkin hinted that heads might roll after the investigation into the latest failure is over.

But Konstantin Kreidenko, chief editor of the Vestnik Glonassa magazine, cautioned that "a good populist measure" like a reshuffle would not improve the overall situation in the industry.

"It's unlikely that the current [space agency] administration is to blame for the most recent accidents," he told The Moscow Times.

To have a lasting effect, reforms should be sweeping and not limited to aeronautics, Kreidenko said. "You [also] need to consider other related industries, like electronics, metal manufacturing and education," he said.

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