

Russian rocket releases toxic fuel after blast in Kazakhstan (Update)

July 2 2013, by Sayora Mashanlo



A picture taken on June 3, 2013 shows a Russian Proton-M carrier rocket blasting off from its launch pad in Kazakhstan. Russia has suffered several recent setbacks in its space programme, notably losing expensive satellites and an unmanned supply ship to the International Space Station.

An unmanned Russian carrier rocket exploded Tuesday on takeoff at the Baikonur cosmodrome in Kazakhstan, releasing tonnes of highly toxic fuel into the air in the space programme's latest disaster caught on live television.

Spectacular footage showed the Proton-M rocket veering off its trajectory just seconds after its 6:38 am (0238 GMT) launch, before falling apart in mid-air, erupting into a ball of flames and unleashing clouds of noxious black smoke.

"It seems something is going wrong," said a Russian television commentator during the live coverage of the launch at the Baikonur cosmodrome in the Central Asian state of Kazakhstan.

"Something is wrong. It seems it will be a catastrophe," said the presenter, his voice trembling, shortly before the rocket exploded.

President Vladimir Putin had been informed of the accident, the Kremlin said in a statement.

The rocket, which fell to the ground some 2.5 kilometres (1.5 miles) from the launch pad at the cosmodrome that Russia leases from Kazakhstan, was supposed to take three Russian Glonass-M navigation satellites into space.

The rocket carried 600 tonnes of kerosene, heptyl and amyl which are highly poisonous components of rocket fuel, said the head of the Kazakh space agency, Talgat Musabayev.

The Russian space agency Roskosmos said the accident caused no damage or casualties but the crash site was immediately cordoned off and residents of nearby towns including Baikonur were told to stay indoors and keep their windows shut.

Heptyl is a highly poisonous component of rocket fuel and is known to be more toxic than the chemical weapon sarin.

Kazakh officials played down the immediate danger to people, saying a

lot of the fuel had burned in the air.

A spokeswoman for the Kazakh space agency told AFP that officials had found no traces of heptyl and amyl in the air and soil samples taken at 0600 GMT.

Locals said the explosion sounded like thunder and that they were not unduly concerned about their safety.

"They asked us to stay indoors and not to open windows," said Mukhtar Umurzakov, a 46-year-old driver, who lives in the town of Kyzyl-Orda some 300 kilometres (185 miles) from Baikonur.

"They also said you cannot release cattle out to pasture but no one paid attention," he told AFP.

Officials in Kazakhstan said earlier Tuesday that a cloud of fumes that had formed over the cosmodrome could move beyond the area.

Head of the emergencies ministry in Kazakhstan, Vladimir Bozhko, said the accident may have been caused by malfunction of a first-stage engine.

Experts say the disaster is a major blow to the reputation of the reliable Proton-M rocket.

"Proton is our main workhorse for commercial use," space analyst Vadim Lukashevich told AFP. "Businessmen will now start thinking whether they should look for another carrier."

He added that Russia would likely come under more pressure from Kazakhstan to increase rental payments for the cosmodrome.

Prominent Kazakh environmental activist Mels Yeleusizov blamed the Russians for the disaster.

"This is real slovenliness indeed. Accidents happen all the time," he said. "It's high time to ban this Proton."

Deputy Prime Minister Dmitry Rogozin told journalists Tuesday night that the explosion will lead to "harsh decisions" over the entire space and rocket industry, including its possible overhaul under a different name.

Though accomplishments like sending the first man into space in 1961 have brought Russia's space programme acclaim, it has suffered several recent setbacks, notably losing expensive satellites and an unmanned supply ship to the International Space Station.

Tuesday's disaster brought to memory a horrific rocket explosion at the same Baikonur cosmodrome in 1960 when a prototype rocket exploded on the launch pad and released the highly poisonous rocket fuel in the air dubbed the "devil's venom".

During the accident 126 people were burned alive or vaporised altogether, while others died of noxious fumes or succumbed to burns later.

The Soviet Union, which was locked in an arms race with the United States, imposed total secrecy over the disaster, and the files were only declassified in the 1990s.

© 2013 AFP

Citation: Russian rocket releases toxic fuel after blast in Kazakhstan (Update) (2013, July 2) retrieved 24 April 2024 from

<https://phys.org/news/2013-07-unmanned-russian-rocket-takeoff-video.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.