N-STAR c Successfully Launched
- For High Reliable Satellite Mobile Communication Services -

1. Successful Launch

N-STAR c which is procured and owned by NTT DoCoMo, by itself, was successfully launched by Ariane 5 (Ariane Space), at 8:21(AM) (JST), in July 6, 2002 (See Photo 1).

In a satellite launch sequence, the launch time is limited by "Launch Window" in order to keep the angle between the sun direction and the satellite direction in a transfer orbit. In this time, the launch window opened from 20:21 to 21:21 in Kourou, French Guiana. After the smooth count down, the Ariane 5 with the N-STAR c was launched with the bright light and big sound.

N-STAR c was separated from rocket 37 minutes after the launch and it was confirmed that the satellite was put into the transfer orbit by monitoring the satellite signals, 20 minutes later, at the ground control station. And N-STAR c was successfully put into the geosynchronous orbit by a few apogee kick motor ignitions. At the 136 degree East longitude, the In-Orbit Test of the satellite was carried out.

Photo 1 Lift off of N-STAR c
(Ariane Space)

2. Outline of N-STAR c

Main features of N－STAR c are shown in table 1.

Table 1 Outline of N－STAR c

Mission	Increase the reliability of Mobile Satellite Services
Vender	Lockheed Martin Space Systems/Orbital Science
Launch Site	Europe's Guiana Space Center in French Guiana
Launch	Ariane 5 (Ariane Space)
Orbital Slot	136 degree East Longitude
Frequency	Sat. to terminal (S-band) 2.6GHz/2.5GHz Sat. to Base station (C-band) 6GHz/4GHz
Life time	More than 10 yrs

3. The future application

Satellite mobile services called “Wide Star,” is provided by “N-STAR a” and “N-STAR b.” And the Wide Star has a wide variety, such as “Satellite portable and car phone services,” “Satellite marine phone,” “Satellite Packet Communication,” and “Satellite airplane phone.” A whole satellite communication services will have more reliability by putting N-STAR c into orbit.

For next generation mobile satellite services, many features of satellite communications such as strong capability to natural disasters, multicast- or broadcast-capabilities, will play a very important role.

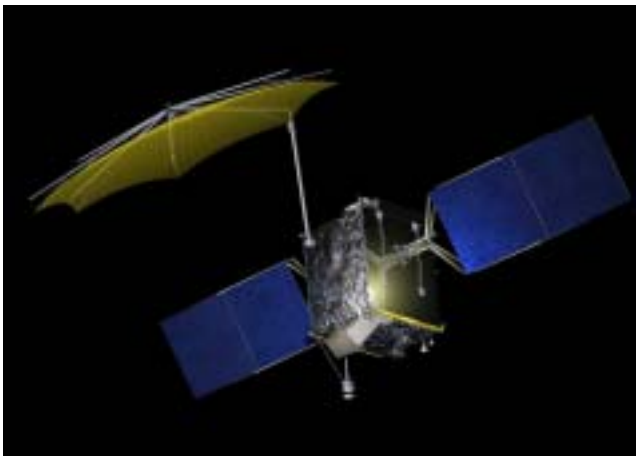

Photo 2 N－STAR c (Image)
(Orbital Science)

(NTTDoCoMo Network Planning Dept. Senior Manager
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