



IN THE PAST WEEK, NASA HAS BEGUN THE PROCESS OF RELOCATING TDRS-1 — A NEWLY RETIRED 25+ YEAR-OLD TRACKING AND COMMUNICATIONS SATELLITE — FROM ITS GEOSYNCHRONOUS ORBIT TO AN ORBIT 300KM (186 MI) HIGHER, ONE REFERRED TO AS "SYNCHRONOUS ORBIT" AND "GRAVEYARD ORBIT"

TDRS-1 was launched in 1983 and spent the majority of its time in space in a geosynchronous orbit over first, the Atlantic Ocean and, later, the Indian Ocean. Over time, its orbit inclination was allowed to increase so TDRS-1 could become the primary communications satellite for the north and south poles and the dedicated communications satellite for the Amundsen-Scott South Pole station. TDRS-1 also enabled pioneering developments in communications technologies, increasing coverage of NASA missions from 20% of each orbit to nearly 100%.

In October 2009, the last of TDRS-1's traveling wave tubes failed, requiring it to be decommissioned and sent toward a "graveyard orbit," where non-operational satellites are sent to make room in the highly desired geosynchronous orbit. Its communication duties will be taken over by other TDRS fleet satellites, including two new ones due for launch in 2012 and 2013.