

Courier-1B



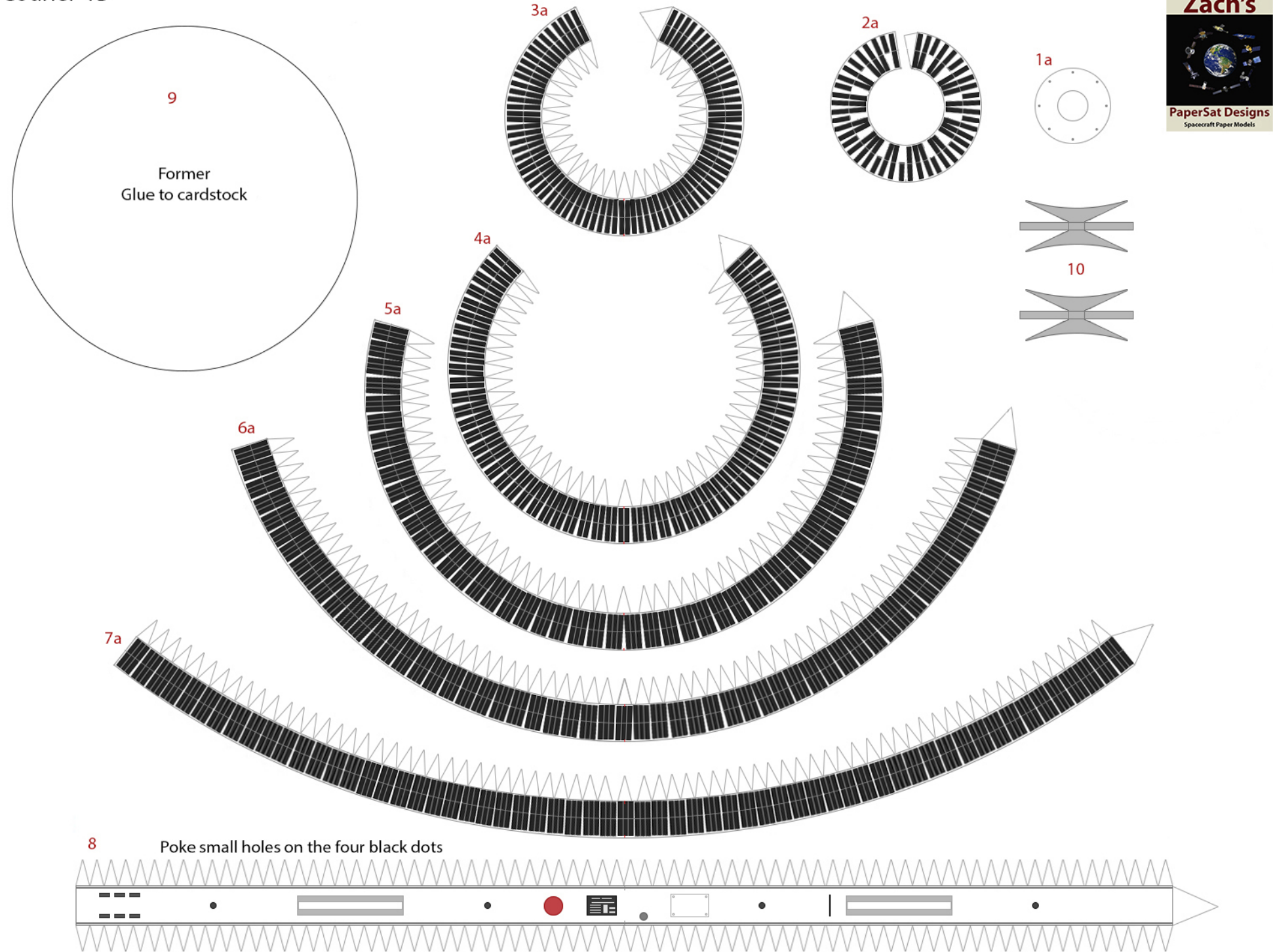
Courier 1B, the world's first active repeater communications satellite, was successfully launched October 4, 1960 at 17:45:00 GMT from Cape Canaveral, Florida. The first Courier satellite in Project Courier, Courier 1A, was lost 2.5 minutes after lift-off on August 18, 1960.

Courier 1B was built by the Western Development Labs (WDL), division of Philco, previously known as "Army Fort Monmouth Laboratories" and now the Space Systems/Loral division of Loral Space & Communications. IT&T provided ground support equipment and Radiation, Inc, Melbourne, Florida, made the large dish ground antennas. Sonotone Corporation, Elmsford, New York developed the on-board power system for the satellite.

Courier 1B was a 225 kilograms (496 lb), 129.5 centimetres (51.0 in) diameter sphere, 135 kilograms (298 lb) of this was the electronic equipment payload. It carried four 2-W microwave FM (1700-1800 MHz) transmitters and a 50-mW transistorized VHF beacon transmitter subsystem. It contained four solid-state receivers in the 1800-1900 MHz microwave band. Five tape recorders were used to store data for later playback. Four of these were digital with a total capacity of 13.2 Mb (4 minutes at 55 kbps) each. One was an analog recorder with a 4-minute capacity and a range of 300 to 50,000 Hz.

After completing a first orbit, a teletype message to the United Nations General Assembly from President of the United States Dwight D. Eisenhower was sent to United States Secretary of State Christian Herter, to be delivered by Herter to Frederick Boland, President of the General Assembly at the United Nations then in session at New York. The message of Eisenhower was transmitted by Courier 1B from the Camp Evans, Deal Test Site, a New Jersey off-base transmission facility of Fort Monmouth. The message was relayed to the Camp Salinas Training Area, a ground station and tracking installation in Salinas, Puerto Rico. If Courier 1B was in sight of the two ground stations at the same time, Courier 1B had the capability of "real time" messaging.

After 228 orbits over 17 days, the payload failed to respond to commands. It was believed that the clock-based access codes got out of synchronization and the satellite would not respond to what it interpreted as unauthorized commands.



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Cut four plastic broom straws or similar thin material the same length as the line below, colored light grey or silver.

