

NRO APPROVED FOR RELEASE
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SECTION IX

~~SECRET~~
SPECIAL HANDLING

R. Lorenz 7/10/2012

AKP-II-596



NEAR SLANT RANGE
164 NAUT MI

PASS 9
S TO N
22 DECEMBER 1964

FAR SLANT RANGE
170 NAUT MI

← ORBIT DIRECTION

(B) COLORADO RIVER, UTAH

First Spaceborne SAR imaging acquired 48 years ago : only just declassified! NRO program 'QUILL' used a Goodyear radar (adapted from the APS-73 radar used on F-4 reconnaissance planes) launched on a Thor-Agena in the Corona series. The battery-powered mission acquired 14 swaths covering $\sim 200,000\text{km}^2$ over 21-26 December 1964, with a range resolution of $\sim 25\text{m}$ and azimuth resolution reaching $\sim 3\text{m}$: some data transmitted by UHF, some captured on film on-board and returned by entry capsule with SAR processing implemented with an optical system. Data covered only continental USA to avoid international complications.