

RF AND I.F. CABLES OF THE FIVE-ELEMENT ARRAY

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The following notes give details of the 1/2" and 7/8" Spiroline cables in the buried runs between the Butler building, the delay building and the bases of the antennas. The 1/2" Spiroline was all new cable and is used for the i.f. signals. The 7/8" Spiroline is used for the S-band synchronizing signals, for the local oscillator, and one spare run to each antenna is included. Some of the 7/8" cable was new and some had been used on the 30 ft. interferometer. The lengths of the 7/8" cable were made equal as nearly as possible using the available cable in continuous runs with no underground joints. The cables were buried at a depth of approximately 3 ft. in a trench that runs along the south edge of the antenna pedestals. Excess lengths were coiled and buried in front of the delay building.

The cable lengths given below should be correct to ± 1 ft.

No. 1 to Delay Shelter

340 ft.	7/8"	(1) from a new reel (1000 ft.)
340 ft.	7/8"	(2) from an old but unopened reel
380 ft.	1/2"	

No. 2 to Delay Shelter

330 ft.	7/8"	(1) } from same new reel as cable 1 from antenna 1
327 ft.	7/8"	(2) } (this just used up the reel)
380 ft.	1/2"	

No. 3 to Delay Shelter

330 ft.	7/8"	(1) from old unopened reel
340 ft.	7/8"	(2) from a 348 ft. length which ran out to a 30 ft. antenna
380 ft.	1/2"	

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No. 7 to Delay Shelter

330 ft.	7/8"	(1)	from a new reel
327 ft.	7/8"	(2)	from old unopened reel
380 ft.	1/2"		

No. 10 to Delay Shelter

378 ft.	7/8"	(1)	from new reel
378 ft.	7/8"	(2)	from an incomplete reel which had been at Heliopolis several years. One end was not well sealed and this is now nearest the antenna
390 ft.	1/2"		N.B. i.f. cable to No. 10 is 10 ft. longer than for other antennas

Delay Shelter to Butler Building

5 x 187 ft.	1/2"	for i.f.	
2 x 160 ft.	7/8"	for L.O.	{ one from a new reel one from same reel as cable 2 of antenna No. 10; this part was furthest from unsealed end.
1 x 160 ft.	7/8"	spare i.f.	from another incomplete reel which had been at Heliopolis for some years and appeared to have been properly sealed.