

LONG-RANGE PLAN: CY 1977-CY 1983
(\$ in Millions)

PROGRAM: NATIONAL RADIO
ASTRONOMY OBSERVATORY
(NRAO)

	CY 1977	CY 1978 SCIENTIFIC NEED LEVEL	CY 1978 LOW LEVEL	CY 1978 NSF LEVEL	CY 1979 SCIENTIFIC NEED LEVEL	CY 1979 LOW LEVEL	CY 1980 SCIENTIFIC NEED LEVEL	CY 1980 LOW LEVEL	CY 1981 SCIENTIFIC NEED LEVEL	CY 1981 LOW LEVEL	CY 1982 SCIENTIFIC NEED LEVEL	CY 1982 LOW LEVEL	CY 1983 SCIENTIFIC NEED LEVEL	CY 1983 LOW LEVEL
<u>RADIO ASTRONOMY</u>		(1)	(2)	(3)	(4)									
Green Bank-Charlottesville Operations	6.84	7.30	6.82	6.60	7.63	7.63	8.83	8.83	9.81	9.57	10.68	10.43	11.58	11.31
Very Large Array Operations	0.70	1.40	1.40	1.20	2.49	2.49	3.36	3.36	3.77	3.77	4.06	4.06	4.36	4.36
Millimeter Wave Operations	0.71	0.75	0.75	0.75	0.79	0.79	0.92	0.84	1.61	0.94	2.99	1.01	2.66	1.08
Non-Expendable Equipment	0.75	0.75	0.75	0.75	1.00	0.90	1.30	1.00	2.50	2.00	2.50	2.00	2.50	2.20
Subtotal	9.00	10.20	9.72	9.30	11.91	11.81	14.41	14.03	17.69	16.28	20.23	17.50	21.10	18.95
<u>SITE DEVELOPMENT/ CONSTRUCTION</u>														
Very Large Array	12.50	13.00	13.00	13.00	13.00	13.00	2.60	2.60	-	-	-	-	-	-
Millimeter-Wave Telescope	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Intercontinental Array	-	-	-	-	-	-	2.00	-	-	-	-	-	-	-
Other Facilities	-	-	-	-	0.20	-	-	-	-	-	-	-	-	-
Subtotal	12.50	13.00	13.00	13.00	13.00	13.00	4.60	2.60	-	-	-	-	-	-
<u>TOTAL</u>	21.50	23.20	22.72	22.30	24.81	24.81	19.01	16.63	17.69	16.28	20.23	17.50	21.10	18.95

- Notes:
- (1) This level is required to operate the four existing telescopes and the completed portion of the VLA. On the basis of scientific need, it is premature to shut down the interferometer before CY 1979.
 - (2) This level enables operations to continue, but with the interferometer closed.
 - (3) The current NSF plan will require a slower VLA build-up, the closing of the interferometer, and a reduction of support in other areas of operations.
 - (4) Funds are requested for the 25-meter telescope. If funds for design can be made available in CY 1978, the project can be accelerated.