VLBA Electronics Memo No. 117

VLBA Electronics Construction Plan for 1990-2.

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The attached table shows the plan for construction of the remaining items of electronics for the VLBA, plus items for the Navy/Green Bank contract that are being built by the VLBA electronics group. The only electronics items that have not yet been included in the plan are those required for the VLBA pulse calibration system. A preliminary version of this plan was circulated earlier in the year, but it has not previously been published in the memo series. The plan includes the two 14-BBC Data-Acquisition racks for the Green Bank/Navy contract, and the two P106 modules required only for these racks have also have been included. The numbers of modules or other items shown for any year is the number for which components are purchased. Construction is generally complete by the end of the same year, but in some cases may extend into the following year. Thus the data given here should not be used to infer when various frequencies etc. may be available on the antennas.

VLBA Electronics Construction Plan.

Unit Name	Type No.	No. to be Compl. by end 1989	No. for Array and Lab	No. of Spares	Total No. Reqd.	No. built after 1989	No. to be built in 1990	No. to be built in 1991	No. to be built in 1992	Navy Contract Total Reqd.	Navy Contract No. built in 1989	Navy Contract No. to be built in 1990	Unit Name
330/610 MHz Feed		5	10	1	11	6	5						330/610 MHz Feed
1.5 GHz Feed		7	10	0	10	3	0						1.5 GHz Feed
2.3 GHz Feed		3	10	0	10	7	4	5					2.3 GHz Feed
4.8 GHz Feed		7	10	0	10	3	2	1					4.8 GHz Feed
8.4 GHz Feed		5	10	0	10	5	5						8.4 GHz Feed
10.7 GHz Feed		1	1	0	1	0	0						10.7 GHz Feed
15 GHz Feed		1	10	0	10	9	4	5					15 GHz Feed
23 GHz Feed		8	10	0	10	2	2						23 GHz Feed
43 GHz Feed		1	10	0	10	9	4	5					43 GHz Feed
8.4/23 Dichroic		3	10	2	12	9	4	4					8.4/23 Dichroic
330/610 MHz F.E.		5	10	1	11	6	2	4					330/610 MHz F.E.
1.5 GHz F.E.		11	10	1	11	0	0	0					1.5 GHz F.E.
2.3 GHz F.E.		3	10	1	11	8	2	6					2.3 GHz F.E.
4.8 GHz F.E.		7	10	1	11	4	4	0					4.8 GHz F.E.
8.4 GHz F.E.		8	10	1	11	3	3	0					8.4 GHz F.E.
10.7 GHz F.E.		1	1	0	1	0	0	0					10.7 GHz F.E.
15 GHz F.E.		1	10	1	11	10	0	10					15 GHz F.E.
23 GHz F.E.		8	10	1	11	3	3	0					23 GHz F.E.
43 GHz F.E.		1	10	1	11	10	3	7					43 GHz F.E.
330 MHz Conv.	T101	5	11	3	14	9	2	7					330 MHz Conv.
610 MHz Conv.	T102	5	11	3	14	9	0	9					610 MHz Conv.
1.5 GHz Conv.	T103	11	11	3	14	3	3	0					1.5 GHz Conv.
2.3 GHz Conv.	T104	3	11	3	14	11	3	8					2.3 GHz Conv.
4.8 GHz Conv.	T105	7	11	3	14	7	7	0					4.8 GHz Conv.
8.4/23 GHz Conv.	T106	8	11	3	14	6	6	0					8.4/23 GHz Conv.
10.7 GHz Conv.	T107	1	1	0	0	0	0	0					10.7 GHz Conv.
15 GHz Conv.	T108	1	11	3	14	13	0	13					15 GHz Conv.
43 GHz Conv.	T110	1	11	3	14	13	4	9					43 GHz Conv.
F.E. Interface	F117	45	89	10	99	54*	17	37					F.E. Interface
330/610 Adapter	F118	9	11	3	14	5	2	3					330/610 Adapter
Maser Interface	L101	9	11	3	14	5*	5	0					Maser Interface
L.O. Transmitter	L102	9	11	3	14	5	5	0					L.O. Transmitter
Round Trip Mon.	L103	9	11	3	14	5*	3	2					Round Trip Mon.
L.O. Receiver	L105	9	11	3	14	5	5	0					L.O. Receiver
2-16 GHz Synth.	L104	35	33	5	38	3*	3	0					2-16 GHz Synth.
Switch Driver	L107	9	11	3	14	5*	2	3					Switch Driver
Station Timer	L108	9	11	3	14	5	2	3					Station Timer
Rack B Interface	M102	9	11	3	14	5*	2	3					Rack B Interface
Power Supply	P101	43	75	8	83	40	14	8	18	6	3	3	Power Supply
Power Supply	P102	27	33	4	37	10	6	0	4				Power Supply
Power Supply	P103	43	75	8	83	40	14	8	18	2	1	1	Power Supply
Power Supply	P104	9	11	3	14	5	5	0					Power Supply
Power Supply	P105	6	21	3	24	18	4	4	10	2	1	1	Power Supply
Power Supply	P106									2	2		Power Supply
Model 22 Power Sup.		29	56	6	62	33	15	18					Model 22 Power Su
Model 350 Power Sup.		11	22	3	25	14	4	10					Model 350 Power S
Rack A (F.E. Interface)		9	11	0	11	2	2						Rack A (F.E. Inte
Rack B (I.F.-L.O.)		9	11	0	11	2	2						Rack B (I.F.-L.O.
Rack C (Master L.O.)		9	11	0	11	2	2						Rack C (Master L.
Cryo. Compressors		19	20	10	30	11	5	6					Cryo. Compressors
I.F. Distributor	T121	16	42	4	46	30	8	8	14	4	2	2	I.F. Distributor
Baseband Conv.	T122	32	84	10	94	62	16	16	30	28	14	14	Baseband Conv.
5 MHz Distributor	L121	17	32	3	35	18	6	4	8	4	2	2	5 MHz Distributor
32 MHz Synth.	L122	8	21	3	24	16	4	4	8	4	2	2	32 MHz Synth.
Sampler	D121	8	21	3	24	16	4	4	8	4	2	2	Sampler
Output Rate Synth	D122	8	21	3	24	16	4	4	8	2	1	1	Output Rate Synth
Formatter		8	21	3	24	16	4	4	8	2	1	1	Formatter
Rack D (Data Aquisition)		8	21	0	21	13	4	4	5	2	1	1	Rack D (Data Aqui
GPS Timing Receiver		4	11	1	12	8	2	6					GPS Timing Receiv

* Indicates that unit requires M/C Interface Card