Interoffice

VLB ARRAY MEMO No. 263

National Radio Astronomy Observatory

Charlottesville, Virginia

September 12, 1983

To: VLBA Members

From: Carolyn

Subject: List of VLBA Memos

Attached is a list of all VLBA Memos including number, title, author and date mailed. I will be sending updated versions of this list every two or three months.

VLBA Memos

1	VLBA Design Study 800522	Kellermann
2	Antennas for the VLBI Array 800609	Findlay
3	A 25-m Radio Telescope Design for the VLB Array Project 800707	W-Y. Wong
4	VLBI Array Computer Usage 800703	Cotton & Benson
4A	"	
5	Sensitivity of a Partially Coherent Array	Clark
6	VLBI Cost Estimates 800416	Balister
7	Proposed Receiver for the VLBI Array	Balister
8	Cost Estimate for the Wong Antenna 800814	W-Y. Wong
9	Balsa-Wood-Core Test Plates 800717	Wong
10	Notes on Visit to ASULAB 800709	Kellermann
11	Digital Data Transmission System 800724	Weinreb
12	VLBA Design Study 800808	Horne
13	Site Development Program 800821	Peery
14	Antenna Construction Program 800822	Kellermann
15	Antenna Design Details 800724	Wong
16	Masers and VLBI Array 800815	Balister
17	VLB Array 800815	Thompson
18	Computer Usage 800828	Cotton & Benson
18A	"	

19	Computer Needs	Walker & Burns
20	Construction Plan 800829	Hvatum
21	Preliminary VLA Spectral Line System 6/75	Shalloway
22	A Possible Feed System for the VLBA Antenna 800826	Napier
23	Alternative Data Communication Systems	G. W. Swenson, Jr.
24	Automatic VLBI Observing	Swenson
25	Self-Calibration with a Low SNR 800603	Schwab
26	VLBA Receiver 810520	Balister
27	Size of Antenna Elements for the VLB Array 810716	Kellermann
28	Tape Recording Systems for the VLB Array 810716	Kellermann
29	Multiple Processor Sites for the VLB Array 810724	Kellermann
30	A Single Carrier Satellite LO System 8/81	Clark
31	Questions to be Addressed 811019	Kellermann
32	Planning Committee 811021	Kellermann
33	VLBA Working Groups 811026	Kellermann
34	VLB Array 811026	Kellermann
35	Questions to be Considered for the VLBA 811029	Kellermann
36	Distribution List 811102	Hvatum
37	VLBA Proposal 811102	Hvatum

38	Critique of Feb. 1981 VLBA Design Study 811113	Hjellming
39	Remarks on the VLBA Report 811110	Clark
40	Report on 11/16/81 VLBA Meeting 811117	Kellermann
41	Possible Array Funding Plan 811125	Kellermann
42	Correlator 811204	Clark
43	Dec. 18, 1981 Meeting 811216	Kellermann
44	Recording Systems 811217	Escoffier
45	Dec. 18 Meeting Notes 811223	Kellermann
46	Draft of Configuration Section 811231	Walker
47	Data Storage Requirements 811231	Walker
48	Receiver Block Diagram & Test Equipment Budget 820104	C. Moore
49	Studies of Array Dynamic Ranges Dec. '81	Roger Linfield (Cal Tech)
50	Cost Estimate Antennas 811204	W. Horne
51	Monitor and Control Chapter 820112	Weinreb
52	Front End System 820111	Balister
53	Suggested Numbers of Spare Modules for the VLB Array 820107	Thompson
54	Agenda, Meeting Jan. 26, 1500 EST 820119	Kellermann
55	Hardware Cost Estimate for Receiver Section of H-Maser Frequency Standard 820120	R. Mauzy

56	Recording System - Draft #2 820120	Escoffier
57	Data Digitization Electronics 820120	Lacasse
58	Front End Alternatives 820121	C. Moore
58A	Front-End System (6/22/82)	C. Moore
59	Feed System 820111	Napier
60	Alternative Data Digitization Electronics 820122	Lacasse
61	Playback Correlator System 820126	Clark
62	Local Oscillator System 820115	Weinreb/ C. Moore
63	Front End System - Further Comments 820119	C. Moore
64	Recording System - Draft #3 820127	Escoffier
65	H Maser Cost Estimate 820128	C. Moore
66	General and Digital Test Equipment 820128	Lacasse
67	Preliminary Cost Summary - Construction 820129	Kellermann
68	Correlator Cost 820129	Clark
69	Spare Parts 820204	Kellermann
70	Agenda for Feb. 9th VLBA Meeting 820205	Kellermann
71	Cost Estimates - Construction (First Draft) 820205	Kellermann
72	Post Processing Requirements 820203	Ekers
73	Correlator Design 820204	M. Ewing (Cal Tech)
74	Cost Estimate - Construction (Second Draft) 820212	Kellermann

75	Correlator System - Condensed Version 820216	Clark
76	Comments on S/X Receivers and Record System 820208	Rogers/Hinteregger (Haystack)
77	Additional Comments on Local Oscillator System 820203	C. Moore
78	Recording System - Draft #4 820222	Escoffier
78A	The Array Record System (6/17/82)	
79	Notes on the Planning Committee Meeting, 2/16/82 820301	Kellermann
80	VLBA Element Operating Probability Using VLA Reliability Data 820305	J. Campbell
81	Frequency Protection for the Transcontinental Radio Telescope Mar. '82	Thompson
82	Global Fringe Search Techniques for VLBI April 1982	Schwab
82-A	ERRATA: Global Fringe Search Techniques for VLBI April 1982	Schwab
82-B	Global Fringe Search Techniques for VLBI (June 1982)	Schwab/Cotton
83	April 19th Meeting to Review Proposal 820415	Kellermann
84	A Design Study for a Dedicated VLBI Array 820519	Mutel/Gaume (Univ. of Iowa)
85	Notice of May 17 Meeting 820504	Kellermann
86	Building Costs in Socorro & Albuquerque for the VLBA Study 820510	Napier
87	Argentina Telescope (Letter from E. Bajaja to Kellermann & Kellermann's response) 820421	E. Bajaja
88	Ball Systems Mobile Antenna Element (Letter from Kellermann to Ball Aerospace Systems Div.) 820602	Kellermann
89	What Next? 820607	Walker
90	Technical Memoranda and Reports 820607	Kellermann

91	National New Technology Telescope - Remote Observing Experiments at Kitt Peak National Observatory (report) March 1982	W. Robinson/ P. Schechter/ C. Janes
92	Construction Plan/Schedule for the VLBA 820609	Hvatum
93	Data Digitization Electronics, Draft 2 820610	Lacasse
94	Self-Maintenance for VLA Computers (VLA Computer Memo #163) April 1982	Retallack
95	VLBI Array Computer Useage: Fringe Fitting June 1982	Cotton
96	Array Dynamic Ranges 800708	Richard Simon
97	An Atlas of Transfer Functions for Possible VLBI Arrays 820623	Walker
98	Post Processing Computer Configuration 820630	Ekers
99	Events & Things to Consider for the VLBA Sites 820701	Peery
100	An Alternative Figure of Merit for Comparison of Proposed VLB Array Configurations June 1982	Schwab
101	Possible Block Diagram for VLBA Correlator 820715	Escoffier
102	VLBA Correlator Design Group - Telephone Meeting 7/13/82 820713	Ewing
103	Preliminary VLBA Planning Groups 820714	Hvatum
104	Schedule of Processor Group Meetings 820723	Hvatum
105	Progress Report for the August 4th Meeting of the Configuration Group July 1982	Schwab
106	Dirty Beam Maps of Various Array Configurations 820728	J. Benson
107	VLBA Electronics Group Meeting 820806	Balister

108	VLBA Data Recording Group Meeting 820806	Hvatum
109	New Telephone Number - VLBA Processor Group 820806	Hvatum
110	VLBA Overall Data Flow 820806	Ewing
111	Number of Channels for VLBA: Comparison of 2 Schemes 820809	Rogers
112	Elimination of "Bit Shifting" Sidelobes - New Bit Shift Corrections for Automatic Bit Shift Mode 820810	Rogers
113	Minutes of VLBA Electronics Group Meeting 820813	Balister
114	VLBA Correlator Group - Telephone Meeting 820810	Ewing
115	VLBA Recorder Group - Minutes of Meeting Held 8/10/82 820811	Rogers
116	Minutes of the 8/5/82 VLBA Computer Group Meeting 820813	Burns
117	VLSI for Multi-Lag Cross-Correlator Circuit Cross-Correlator Slice (CCS) 820816	Peterson (JPL)
118	Application of a VLSI Correlator Chip 820816	Peterson
119	Minutes of 8/13/82 Overseer Meeting 820818	Hvatum
120	Frequency Multiplexed Correlators: The Recording Format 820825	B. Clark
121	VLBA Data System Block Diagram 820825	B. Clark
122	Australian Telescope 820901	Hvatum
123	Telescope Sites 820830	Peery/Brundage
124	A Systematic Search for Ten Station VLB Array Geometries 820924	Mutel/Gaume

125	Astrometric Data Processing with a VLBA 820928	Shaffer
126	A Post-processing Software System for VLBA Continuum Observations 820930	Benson
127	VLBA Spectral Line Experiment Example 820927	Reid
128	VLBA Computer Control for Observing: The MK III Experience 821001	Vandenberg
129	VLBA Data Recording Grp. Meeting - 10/19/82 821008	Hvatum
130	Minutes of Correlator Group Meeting - 10/5/82 821006	Ewing
131	Antenna Control Computer Option 821008	Ewing
132	Minutes of VLBA Recorder Group Meeting - 10/5/82 821007	Rogers
133	VLBA Bookkeeping Operations 821018	Pearson
134	Current Status of the Configuration Search 821022	Walker
135	Minutes of VLBA Recorder Group Telecon Meeting Held 19 Oct. '82 at 1430 EDT 821019	Rogers
136	National Bureau of Standards Climatic Charts 821021	Benson
137	Preliminary Record/Playback System Interface Specifications 821026	Escoffier
138	The Implications of Geodetic and Astrometric Observations on the VLBA IF Processor Design 821029	C. Moore
139 & 139-A	Radiosonde Data from Puerto Rico 821029	Hogg
140	Proposed Recorder Interface for VLBA 821007	Rogers
141	Some Suggested Changes and Improvements to MK III Which Might be Appropriate for the VLBA 821007	Rogers

142	IF-Tape-Correlator Interfaces 821104	Ewing
143	A Possible Configuration 821112	Walker
144	Fast Quality Measure 821112	Walker
145	Minutes of Correlator Group Meeting - 11/9/82 821111	Ewing
146	Minutes of Electronics Group Meeting - 11/10/82 821115	Balister
147	Experience with Unattended Telescope Operation Under Computer Control at Michigan 821116	Hugh Aller
148	The Pro's and Con's of Frequency Switching or How Many Frequency Channels Does the VLBA Need? Nov. '82	Shaffer
149	Coordinating Group/Scientific Group Meeting - 12/10/82 821129	Kellermann
150	Hail 821130	Walker
151	Number of IF Bands 821130	Walker
152	November Meeting Notes 821130	Walker
153	VLBA Software Requirements Nov. '82	Walker
154	Slew and Setting Rates for VLBA Antennas 821126	Rogers/Whitney/ & Hinteregger
155	Agenda for Dec. 10th Meeting 821203	Kellermann
156	Updated Lists of VLBA Working Groups, Directory & 1983 Meeting Schedules 821206	Hvatum
157	Possible VLBA Sites 821206	Walker
158	Minutes of VLBA Recorder Group Meeting - 12/7/82 821208	Rogers
159	VLBA Requirements for Live-Time Fringe Checks 821215	Matthew H. Schneps
160	Slew Rates for VLBA Antennas 821214	Horne

161	Ball Aerospace MRAS Concept for the VLBA 821217	C. Moore
162	VLBA Data Structures 821211	Pearson
163	VLBA Schedule & Telescope Control Philosophy 821214	Reid
164	VLBI "Channelization" 830103	Rogers
165	Meeting on February 9 (Scientific & Coordinating Groups) 830113	Kellermann/ Hvatum
166	VLBA Antenna Control Computer 830111	Hunt
167	The AIPS Database Structure and the VLBA 830112	Cotton
168	Minutes of the VLBA Recorder Group Meeting-1/18/83 830118	Rogers
169	Minutes of VLBA Elec. Group Meeting-1/19/83 830124	Balister
170	A 32-Channel I.F. Scheme for the VLBA 830124	Moore
171	February 9th Meeting 830128	Kellermann
172	Telescope Sites 830131	Horne
173	Radio Link Between VLBA and VLA Antennas 830207	Kellermann
174	Letter from W. Ward to C. Moore Re LES 8/9 820621	William Ward
175	Tables of Contents for VLBA Station Observing Logs and Processor Log Files 830203	Benson
176	Draft Correlator Spacification 830206	Ewing
177	CLBA Technical Subcommittee Chairmen 830214	Bridle
178	Phased Arrays as VLBA Elements 821222	Moran

179	Some Remarks about Three-Level Sampling 830215	B. Clark
180	Minutes of Correlator Group Meeting on 2/15/83 830215	Ewing
181	(U,V) Sampling Comparisons of VLBA, CLBA, and a Joint Array 830218	Walker & Bridle
182	Change in Meeting Schedule (for Configuration Group) 830218	Cathy
183	Misc. Correlator Issues 830217	Ewing
184	Correlator "176" vs. an "ideal" system 830217	Ewing
185	Minutes of VLBA Recorder Group Meeting on 2/15/83 830218	Rogers
186	Multi-level Sampling Options for VLBA 830217	Rogers/Whitney
187	The Role of Antenna Size in Self-Calibration 830222	Cornwell
188	Radio Link Cost Estimates 830228	Coe
189	VLBA/CLBA Construction Cost Estimate Comparison 830303	Bridle
190	Reissue of Membership List, Working Groups and Meeting Schedules 830308	Hvatum
191	Control Building 830307	Peery
192	Signal Quantization in the VLB Array 830304	Thompson
193	Antenna Elevation - Angle Cutoff 830302	Shapiro
194	An Optimized Ten-Station Array 830307	Mutel/Gaume
195	Change in VLBA Electronics Group Meeting 830314	Balister
196	Report of Ad Hoc Committee on Sampling and Channels 830314	Clark

197	VLB Array Memo No. 176 830302	Rayhrer
198	VLBA Scientific Working Group Action Items, 3/11/83 Meeting 830317	Kellermann
199	Minutes of VLBA Recorder Group Meeting - 3/15/83 830316	Rogers
200	Letter from Kellermann to Tom Legg re CLBA/VLBA Proposals 830316	Kellermann
201	Memo #191, Control Building VLBA 830321	Horne
202	Bandwidth Synthesis with Two Channels 830321	B. Clark
203	Minutes of VLBA Electronics Group Meeting - 3/28/83 830330	Balister
204	Time and Frequency Averaging 830310	Cotton/Benson
205	Final Configuration 830328	Walker
206	Letter to Carl Bignell Re Individual Network Stations & Central Processing Facility 830316	Price
207	Control Building 830321	P. Crane
208	Objectives of the Operations Group 830406	Bignell
209	RFI and Meteorological Environments at Haleakala Observatory, Maui, Hawaii 830413	Brundage/ Peery
210	The No-Computer Option for Antenna Control 830414	D'Addario
211	Issues to be Addressed by the VLBA Electronics Monitor and Control Subgroup 830414	D'Addario
212	Monitor & Control Channel Usage & Capacity at the VLA 830413	Dave Weber
213	Link Budgetary Estimates 830418	J. Coe
214	VLBA Processor Operations 830421	Walker

215	Minutes of Monitor & Control Subgroup Meeting on 830419 830425	D'Addario
216	Minutes of VLBA Feed Subgroup Meeting on 4/13/83 830419	Napier
217	Timing Tests of Fringe Processor Operations 830425	Benson/Cotton
218	VLBA IF/LO/Maser Subgroup: Proposed Receiver Sky, LO and Image Frequencies 830419	C. Moore
219	1983 Meeting Schedule, Directory & Working Group List 830429	Hvatum
220	Site Selection - VLBA 830427	Horne
221	Operational Requirements: Image Formation & Analysis 830427	Cotton
222	VLBA Control Building & Service Facilities 830426	Horne
223	Minutes of VLBA Computer Meeting - 4/26/83 830429	Burns
224	Tasks of the VLBA Element Control Computer 830503	Pearson
225	Canadian Long Baseline Array - Current Activity 830416	John Galt
226	Restructuring the Configuration Group 830511	Walker
227	Letter from A. Rogers to K. Kellermann Re (1) Proposed band of 7.86-8.66 GHz and (2) "High Data Rate" mode as a term to describe max. available recording rate 830414	Rogers
228	Report of A.T. System Concept Workshop held at Parkes, Dec. 7-9, 1982 821209	R. H. Frater
229	1980 Wind Data - Owens Valley Observatory 830510	Peery
230	Correlator Operations - Tape Changing 830513	Ewing
231	Specifications for a VLB Water Vapor Radiometer 830510	Hogg
232	Front-End Schedule 830518	Weinreb

233	Revised VLBA Meeting Schedules & Membership List 830523	Hvatum
234	Performance of OVRO 40-m Telescope at 43 GHz 830516	Readhead, Seling, Evans
235	K-3 System 830517	Kellermann
236	Minutes of VLBA Electronics Group Meeting-5/18/83 830526	Balister
237	A Low-Risk Canada/US VLB Array Option 830607	Bridle/Walker
238	Suggested Table of Contents for Report 830609	Hvatum
239	Site Inspection for Northern New Mexico Antenna 830609	Kellermann
240	Microwave Links 830607	Thompson
241	Antenna Specifications 830614	Horne
242	Minutes of VLBA Recorder Group Meeting-6/15/83 830616	Rogers
243	Cancellation of VLBA Computer Group Meeting for June 830621	Burns
244	K and Q-Band Maser Construction for the VLBA 830620	C. Moore
245	Minutes of the VLBA Electronics Group Meeting-6/15/83 830622	Balister
246	Further Notes on Microwave Links 830705	Thompson
247	Minutes of the Recorder Group Meeting 7/12/83 830713	Rogers
248	Minutes of the VLBA Electronics Grp. Meeting - 7/13/83 830718	Balister
249	Comments on VLBA Memo No. 241 830803	Napier
250	Use of Los Alamos & Alternate Winston Site 830807	Walker
251	Current Concerns & Meeting Notes 830808	Walker

252	Accounting for VLBA Project 830805	J. Lagoyda
253	Sources of Closure Errors. The MKIII Experience and the VLBA Specifications 830809	Rogers
254	A Possible Double-Conversion Receiver Configuration for the VLBA 830809	L. D'Addario
255	Setting the VLBA Antennas 830817	J. W. Findlay
256	Synopsis of VLBA Electronics Meeting of August 17, 1983 830819	S. Weinreb
257	Revised VLBA Meeting Schedule 830823	H. Hvatum
258	Minutes of the Configuration/Site Group Meeting of Aug. 24, 1983 830826	R.C. Walker
259	VLBA Instrumentation 830831	B. Carter K. Kellermann
260	Possible Solar Observations with the VLBA 830901	M.R. Kundu
261	Canadian Long Baseline Array - Correspondence 830906	K. Kellermann E. Seaquist
262	Antenna Schedule - VLBA 830907	W. Horne