

NORSAR

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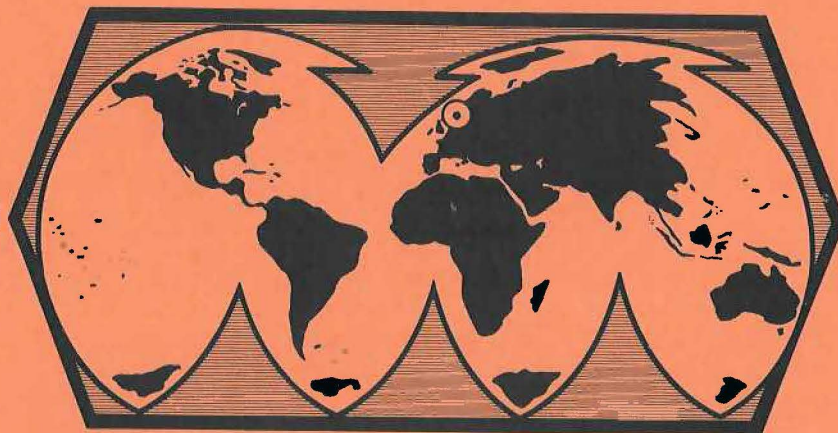
FINAL TECHNICAL REPORT NORSAR PHASE 3

1 July 1974 – 30 June 1975

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X. NORSAR DATA PROCESSING CENTER (NDPC) OPERATION

X.1 Data Center

No substantial change in equipment configuration occurred in the period, except for the installation of two ARPANET/IBM 360 interface units (see Section W).

Operation and maintenance continued in accordance with established routines and schedules. Two new operators were hired as replacements for personnel leaving the project.

In spite of a more intensive care of the equipment, rather frequent failures and malfunctions occurred, in particular of peripherals. Also, a tendency towards more frequent stops of the Special Processing System (SPS) has been observed.

The Time-of-Day (TOD) generator has caused some concern, mainly due to periodic absence of the accurate comparison signal from the nearby Air Force base, caused by faulty equipment. Further experiments have been made with the WWV receiver and various antennas, however, usable signals cannot be obtained due to bad local reception conditions.

X.2 Communications

A summary of communication outages is given in Table X.1. The high outage of 01C is caused by a power outage (broken ground cable) rather than communication failure. Otherwise, the average outage is about "normal". Lines with degraded performance are defined as those having between 20 and 200 errors in a 16-minute interval as seen on the printout. More than 200 errors in the same interval causes masking and outage of the subarray.

TABLE X.1

Communications, degraded performance/outages. Monthly figures in hours. Month= 4 or 5 week period as indicated.

Sub- array	JUL (4)		AUG (5)		SEP (4)		OCT (5)		NOV (4)		DEC (4)		Total ½ year		Per cent ½ year	
	>20	>200	>20	>200	>20	>200	>20	>200	>20	>200	>20	>200	>20	>200	>20	>200
01A	2.5	0.7	1.0	0.8	0.3	0.7	1.7	2.7	2.0	--	0.7	--	8.2	4.9	0.2	0.1
01B	1.8	2.5	2.0	0.8	1.0	0.3	3.7	3.0	1.8	--	1.5	--	11.8	6.6	0.3	0.2
02B	2.0	0.7	1.3	0.8	1.0	0.3	1.0	2.5	1.5	--	1.3	31.6	8.1	35.9	0.2	0.8
03B	2.2	0.7	1.7	0.8	0.3	0.3	1.3	2.5	1.2	--	1.0	1.7	7.7	6.0	0.2	0.1
04B	1.8	1.7	1.0	0.8	0.7	0.3	1.8	11.4	1.5	--	1.3	--	8.1	14.2	0.2	0.3
05B	14.8	2.9	12.8	13.8	18.5	9.9	30.7	7.2	59.3	0.7	24.2	0.8	160.3	35.3	3.7	0.8
06B	5.7	3.9	4.0	4.0	1.5	8.2	1.8	6.6	2.7	1.5	2.7	4.7	18.4	28.9	0.4	0.7
07B	7.2	20.3	3.9	78.3	3.0	7.2	2.2	6.9	2.5	1.5	2.5	1.5	21.3	115.7	0.5	2.6
01C	2.7	115.0	2.7	4.4	1.8	13.8	2.2	9.2	1.5	43.3	1.7	1.3	12.6	187.0	0.3	4.3
02C	14.3	2.4	12.1	7.7	6.2	2.9	16.6	3.0	9.2	2.5	8.1	1.3	66.5	19.8	1.5	0.5
03C	8.2	87.7	1.0	0.8	0.7	1.5	1.3	2.9	1.5	0.5	2.9	1.2	15.6	94.6	0.4	2.2
04C	2.2	108.2	2.7	0.8	--	0.3	0.7	3.2	0.8	16.5	0.7	--	7.1	129.0	0.2	3.0
05C	1.5	396.1	1.2	2.2	0.3	1.0	1.0	2.5	1.8	0.7	1.8	2.7	7.6	405.2	0.2	9.3
06C	0.7	0.3	1.0	45.9	0.7	1.3	0.7	16.4	1.5	40.5	1.0	2.7	5.6	107.1	0.1	2.5
07C	37.0	3.5	60.6	3.7	18.3	1.0	0.3	1.5	1.7	4.0	0.3	--	118.2	13.7	2.7	0.3
08C	--	--	1.8	1.2	2.5	7.1	4.5	16.3	8.7	15.6	4.4	8.7	21.9	48.9	0.5	1.1
09C	4.9	22.0	2.5	3.7	1.8	6.9	2.9	6.6	2.2	2.2	2.0	1.3	16.3	42.7	0.4	1.0
10C	--	672.0	2.2	337.0	4.0	12.8	1.5	85.0	2.5	1.8	1.8	1.2	12.0	1109.8	0.3	25.4
11C	5.4	4.0	4.2	3.7	0.8	7.1	1.7	6.9	2.5	1.8	2.2	4.2	16.8	27.7	0.4	0.6
12C	7.4	4.2	4.5	4.4	0.8	8.7	1.5	6.9	1.8	1.5	2.2	7.4	18.2	33.1	0.4	0.8
13C	20.3	273.5	5.0	4.0	2.2	26.5	2.5	31.4	49.9	6.6	131.9	54.4	211.8	396.4	4.8	9.1
14C	3.0	41.8	1.8	56.6	0.3	13.9	2.0	9.4	6.0	3.0	2.2	1.8	15.3	126.5	0.4	2.9

TABLE X.1

Sub- array	JAN (5)		FEB (4)		MAR (4)		APR (4)		MAY (5)		JUN (4)		Total ½ year		Per cent ½ year	
	>20	>200	>20	>200	>20	>200	>20	>200	>20	>200	>20	>200	>20	>200	>20	>200
01A	5.9	--	0.3	0.3	0.8	0.7	--	0.3	1.2	0.7	0.3	--	8.5	2.0	0.2	--
01B	4.2	0.3	1.7	0.3	1.8	1.3	0.3	0.3	1.5	0.7	0.3	--	9.8	2.9	0.2	0.1
02B	5.2	--	1.7	15.6	1.2	1.3	0.7	1.0	2.2	3.7	0.3	--	11.3	21.6	0.3	0.5
03B	4.5	--	1.0	15.6	1.8	1.3	0.7	1.0	3.0	45.5	0.3	--	11.3	63.4	0.5	1.5
04B	6.0	--	1.3	--	1.5	1.3	0.3	0.3	1.8	1.5	0.7	--	11.6	3.1	0.5	0.1
05B	125.8	85.3	83.5	43.0	90.7	148.3	3.4	32.4	1.8	10.4	0.3	1.2	305.5	320.6	7.0	7.3
06B	26.9	4.0	8.2	22.7	1.8	9.7	8.6	34.3	4.5	11.2	0.3	1.2	50.3	83.1	1.2	1.9
07B	4.7	234.0	5.4	22.2	3.0	6.6	3.9	33.6	2.5	18.8	--	1.2	19.5	316.4	0.4	7.2
01C	22.2	153.2	12.3	36.3	2.5	6.7	--	640.8	--	840.0	--	672.0	37.0	2349.0	0.8	53.8
02C	5.0	1.0	3.9	6.6	3.7	1.7	199.2	199.8	4.9	22.3	--	--	216.7	231.4	5.0	5.3
03C	5.7	--	--	0.3	2.4	1.8	0.3	0.7	1.5	3.0	0.7	--	10.6	5.8	0.2	0.1
04C	4.5	0.3	0.3	24.9	1.2	1.3	1.0	0.3	1.8	3.5	1.0	--	9.8	30.3	0.2	0.7
05C	3.7	--	1.3	16.8	0.8	2.7	1.2	1.5	1.8	1.3	0.3	--	9.1	22.3	0.2	0.5
06C	3.9	--	0.7	126.2	1.5	9.6	--	1.3	1.2	1.5	--	--	7.3	138.6	0.2	3.2
07C	15.1	9.4	1.0	--	2.9	0.3	0.3	--	2.2	3.9	6.2	143.0	27.7	156.6	0.6	3.6
08C	3.5	30.7	1.5	2.9	0.3	--	--	0.8	--	--	--	58.6	5.3	93.0	0.1	2.1
09C	9.9	46.7	16.3	47.7	2.9	6.7	21.8	36.6	4.4	18.5	11.4	16.8	66.7	173.0	1.5	4.0
10C	54.4	5.5	8.4	41.5	2.2	82.7	19.3	38.0	6.0	14.1	5.2	115.1	95.5	296.9	2.2	6.8
11C	33.8	3.0	18.3	28.9	2.5	7.1	9.1	92.2	1.8	36.3	1.3	--	66.8	167.5	1.5	3.8
12C	32.3	2.9	9.6	51.4	1.7	6.7	8.2	35.8	51.9	53.8	1.5	--	105.2	150.6	2.4	3.4
13C	302.4	48.6	122.8	122.8	2.4	115.6	6.4	194.5	0.7	36.1	0.3	--	435.0	517.6	10.0	11.8
14C	23.7	5.0	28.1	28.1	2.2	4.9	13.6	37.3	2.7	5.0	0.3	--	70.6	80.3	1.6	1.8

TABLE X.1

Sub- array	TOTAL YEAR		PER CENT YEAR	
	>20	>200	>20	>200
01A	16.7	6.9	0.2	0.1
01B	21.6	9.5	0.2	0.1
02B	19.4	57.5	0.2	0.7
03B	19.0	69.4	0.2	0.8
04B	19.7	17.3	0.2	0.2
05B	465.8	355.9	5.3	4.1
06B	68.7	112.0	0.8	1.3
07B	40.8	432.1	0.5	4.9
01C	49.6	2536.0	0.6	29.0
02C	283.2	251.2	3.2	2.9
03C	26.2	100.4	0.3	1.1
04C	16.9	159.3	0.2	1.8
05C	16.7	427.5	0.2	4.9
06C	12.9	245.7	0.1	2.8
07C	145.9	170.3	1.7	1.9
08C	27.2	141.9	0.3	1.6
09C	83.0	215.7	1.0	2.5
10C	107.5	1406.7	1.2	16.1
11C	83.6	195.2	1.0	2.2
12C	123.4	183.7	1.4	2.1
13C	646.8	914.0	7.4	10.5
14C	85.9	206.8	1.0	2.4
AVERAGE	108.2	373.4	1.2	4.3
LESS 01C		270.4		3.1