J. H. Saltzer
For your info

Honeywell

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JUL 9 1973
J. H. SALTZER

To: List of Attendees

cc: JR Steinberg

Subject: FORUM Minutes for July 3, 1973

Attendees:

WJ Burner	JW Gintell	JR Ohlin
CT Clingen	RM Gross	RA Roach
RC Daley	RE Hoffman	LJ Ryan
	EN Kleinow	

A. H6180 Hardware Status

-- the DSS190 subsystem has now been relocated out of the "Machine Room" and into the "Auxiliary Bay"; the relocation went well, except for some minor difficulties with Drive-4.
-- IOM-B has been experiencing some "funnies"; FED found a burnt-out wire and a bad board.
-- the MTS500 installation is going slower than anticipated.
-- On Bulk Store, we "lost" and replaced a USH board over last weekend.
-- one new hardware bug has been discovered--the repeat instruction doesn't always work with page faults--there are now only six known hardware bugs.

B. H6180 Software Status

-- two problems in the past week with absentee; neither one has been found or fixed; at least one of the two is an old-old problem.
-- Gintell reported on a new change to Page Control which should eliminate the need for doing reloads as a result of Bulk-store crashes; enabling of the new software will be under (logical) switch control; this augmentation should be installed by the end of this week.
-- HSLA/ARDS checkout has started (via Tektronix terminals); currently estimate three more weeks before we're sure that it <u>really</u> works; there are six 1200-baud datasets now in B39; six more will eventually be moved over from 545TS for a total of twelve medium-speed lines into the H6180.
-- the ARPANET hardware interface has been checked-out on the 645; the wire has been run from 545TS to B39; the interface will be moved to B39 next week for software checkout as a Distant IMP on the Development H6180 System.
-- Checkout of Bug #14 has been completed; the fix for Bug #54 was done--incorrectly--will, of course, be re-done.
-- it was discussed and agreed that we will announce that support of v 1 p1 1 will be phased-out as of September 1st.

C. Reliability Test

-- was passed as of June 29th; for three of the past four days, there have been no crashes.
-- Area-4 of the DSS190 was down for 3 days, was repaired (finally) this morning.

D. Tech Square

-- PRT300 problems; FED called for Tech Assist yesterday.
-- one DSU270 drive was repaired over last weekend.
-- the Librafile has been experiencing recoverable errors, will be closely scrutinized in a special session during the coming weekend.
-- the "Withdrawal Plan" for the 645 system has been initiated; the Development-355 and IOM and the "dead" Librafile will be removed early in order to make room for the special DSU270 packing crates.

E. Miscellaneous

-- there was extended discussion of what priority FED should be utilized by FED when they have to decide between working on B39 problems vs. 545TS problems during the next two months; Burner reiterated that all problems at both sites should have top priority.
-- during the first two weeks of Trial Service on the H6180, the service will be available only until midnight because of the shortage of operations -- Burner announced the following schedule of service availability at both sites:

Date	# Shifts on 6180		# Shifts on 645	
	Weekdays	Weekends	Weekdays	Weekends
7/9	2	2	3	3
7/21	3	3	2	2
8/4	3	3	2	0
8/18	3	3	1	0
9/1	3	3	0	0
9/14	3	3	N/A	N/A

-- Ryan and Roach will prepare a general announcement to be published in The Bulletin and in the online info segments.
-- Ryan handed-out the detailed schedule for both the Service and Development systems.
-- beginning next Monday (July 9) Ryan will provide operators to man the Development System during the 0800-1000, 1800-2000, and 0001-0400 time periods.

-- Ryan has requested the MIT Physical Plant people to make a study of how to provide more cooling air to the "back corner" (by the DN-355) of the Machine Room.
-- Ohlin requested proper grounding of the PRT300 and the SCU's; the PRT300 and TN-300 will be relocated to the second floor this coming weekend; this PRT300 will be direct-cabled to the IOM.
-- Ryan requested Gintell to provide him with a list of the authorized users of the Development System.

R.E.Hoffman
Account Manager/MIT

REH/s

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TO: FORUM Attendants

FROM: Ronald B. Rakip

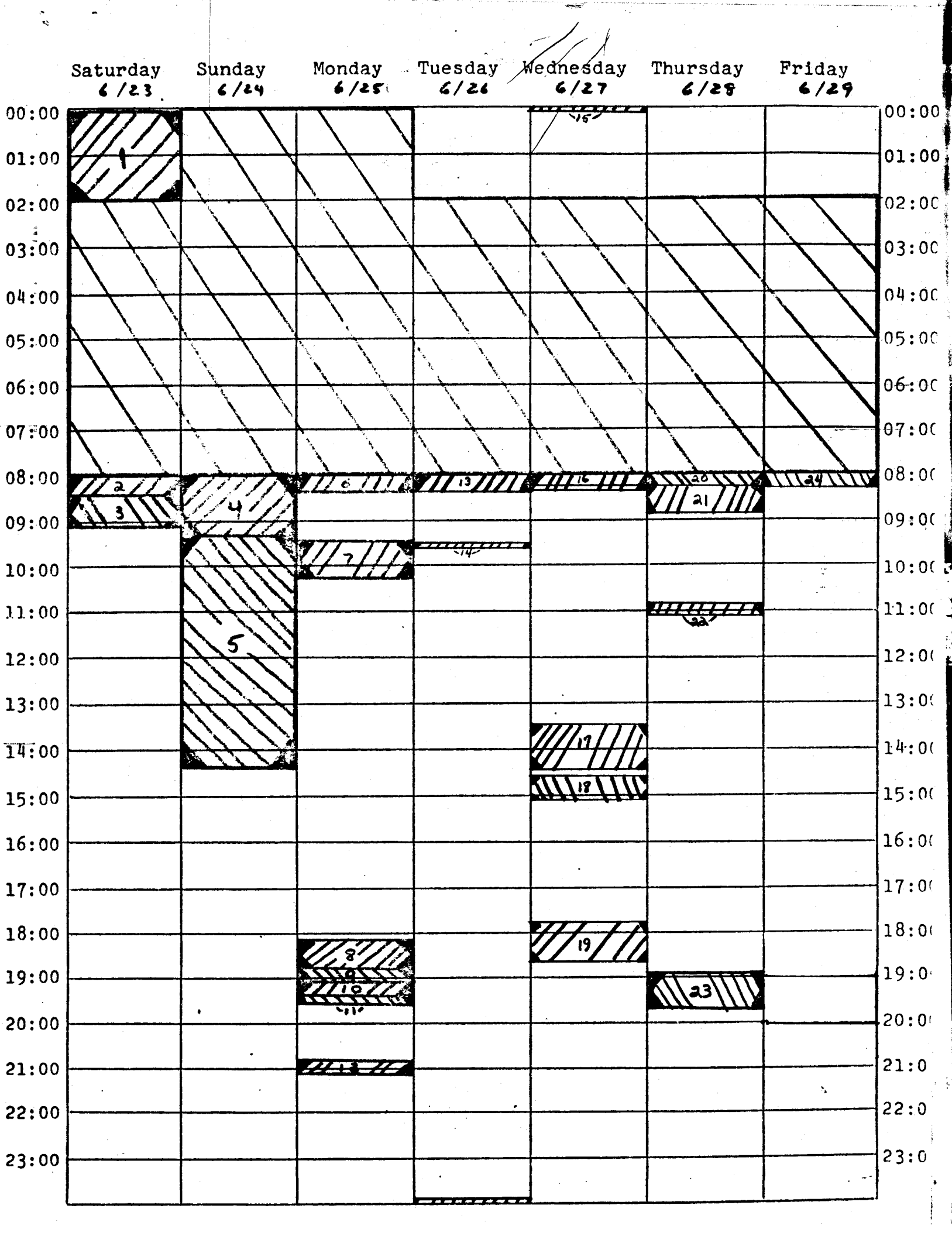
DATE: July 2,1973

SUBJECT: Multics 6180 Availability, June 23-29

I. Summary of Lost Time

	# of Crashes	Time Lost Crashes	Time Lost Other	Total
Hardware:	3	1:50	2:44	4:34
Software:	9	4:02	0:48	4:50
Other:				
Operations:	0	0:00	3:14	3:14
Environment:	0	0:00	0:00	0:00
Not Available	0	0:00	0:00	0:00
Special Sessions:	0	0:00	4:51	4:51
Total	12	5:52	11:37	17:29

Total Lost Time/Scheduled Up Time = 17:29/122:00 = .143


Saturday 6/23
Sunday 6/24
Monday 6/25
Tuesday 6/26
Wednesday 6/27
Thursday 6/28
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#	sys.	date	time	type	brief explanation
	20.8	06/29/73			NO CRASHES
540	20.7	06/28/73	18:57	H	Bulk store read errors in CSM-4
539	20.7	06/28/73	10:49	H	CPU A failure
538	20.7	06/27/73	17:50	S	Bug in delentry & chname
537	20.7	06/27/73	14:37	S	Bug in delentry & chname
536	20.8	06/27/73	13:30	S	Bug in PL/1 Compiler
535	20.7	06/26/73	23:55	S	New Message Coordinator problem (NMC pulled)
534	20.7	06/26/73	09:30	S	Absentee queue 3 clobbered by ERF 530
533	20.7	06/25/73	20:54	S	Bug in DataNet 355 code, fix submitted
532	20.7	06/25/73	19:01	S	Absentee queue 3 clobbered by ERF 530
531	20.7	06/25/73	18:56	S	Absentee queue 3 clobbered by ERF 530
530	20.7	06/25/73	18:12	S	Loop in absentee_utility
529	20.7	06/25/73	09:28	H	Parity error, Memory B
	20.7	06/24/73			NO CRASHES (System down until 14:15 for Special Session)
	20.7	06/23/73			NO CRASHES

#	Time Lost Down At		Up At	Explanation	Time Due Lost To
1	00:00 06/23	-	02:00 06/23	Recovery from ERF 528	2:00 H (Bulk)
2	08:00 06/23	-	08:23 06/23	System late coming up	0:23 Oper
3	08:23 06/23	-	09:07 06/23	DSU190 problems	0:44 H (D190)
4	08:00 06/24	-	09:24 06/24	System late coming up	1:24 Oper
5	09:24 06/24	-	14:15 06/24	Special Session (software)	4:51 -
6	08:00 06/25	-	08:22 06/25	System late coming up	0:22 Oper
7	09:28 06/25	-	10:11 06/25	Crash, ERF 529	0:43 H (Mem B)
8	18:11 06/25	-	18:49 06/25	Crash, ERF 530	0:38 S (Absentee)
9	18:49 06/25	-	19:02 06/25	Crash, ERF 531	0:13 S (Absentee)
10	19:02 06/25	-	19:23 06/25	Crash, ERF 532	0:21 S (Absentee)
11	19:23 06/25	-	19:32 06/25	Special Session (software)	0:09 S (Absentee)
12	20:54 06/25	-	21:06 06/25	Crash, ERF 533	0:12 S (d355)
13	08:00 06/26	-	08:25 06/26	System late coming up	0:25 Oper
14	09:30 06/26	-	09:36 06/26	Crash, ERF 534	0:06 S (Absentee)
15	23:55 06/26	-	00:05 06/27	Crash, ERF 535	0:10 S (New MC)
16	08:00 06/27	-	08:20 06/27	System late coming up	0:20 Oper
17	13:31 06/27	-	14:31 06/27	Crash, ERF 536	1:00 S (Compiler bug)
18	14:37 06/27	-	15:05 06/27	Crash, ERF 537	0:28 S (delentry-chname)
19	17:50 06/27	-	18:44 06/27	Crash, ERF 538	0:54 S (delentry-chname)
20	08:00 06/28	-	08:17 06/28	Special Session (software)	0:17 S
21	08:17 06/28	-	08:49 06/28	Operator Setup (some prob's)	0:22 S
22	10:49 06/28	-	11:07 06/28	Crash, ERF 539	0:18 H (CPU A)
23	18:57 06/28	-	19:46 06/28	Crash, ERF 540	0:49 H (Bulk)
24	08:00 06/29	-	08:20 06/29	System late coming up	0:20 Oper