HK Level Zero Code Debug Guide(version 21 on 5/11/2011)

Item # (priority) =>exec or script name	Module Componen t/ Subcompo nent/ Executab le	Error or Warning	Total Message	Problem Described	Solution/ Actions Required
1 (high) **=>dsdf.pl**	->HK Level 0 ->MOC Dayfile Save and decode keywords data for asd dayfile and save keywords to asd HK by APID series(sdo.lev0_asd_0004) - >dsdf.pl cronjob on producti on@j0.	**Email messages with this subject. JSOC: (1)WARNIN G: Ingesting MOC dayfiles: status:No files loaded today**	JSOC: WARNING: Ingesting MOC dayfiles: status:No files loaded today Warning Message: -->Received count of <0> hkt files and count of <0> xml files from directory </tmp21/jsoc/sdo /mocprods/lzp>. -->When executing script </home/productio n/cvs/JSOC/proj/ lev0/scripts/hk/ dsdf.pl> from cron job.	Dayfile were not retrieved by process that retrieves the Level 0 dayfiles from MOC Product server. This should be done by 9PM PDT. Then this process looks for dayfiles. If none are there, an email is sent out to jsoc_ops. This causes other processes to fail because they are looking for dayfiles at 11PM.	(1)Confirm the process that retrieves Dayfiles from MOC is working. Check with Art or Hao. (2-option a)Once this is working the process will pick up dayfiles for lost day(s) and the current day and save dayfiles at 10PM-PDT. (2-option b)If needed we can start save of dayfiles for lost day as soon as we get files retrieved by process that gets files from MOC Product Server. ->login to j0 as production. % cd /home/production/cvs/JSOC/proj/ lev0/scripts/hk % dsdf.pl moc -->View log file to confirm saved dayfiles and decode asd dayfile. % view log-df-moc

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2 (low-high) **=>dsdf.pl**	->HK Level 0 ->MOC Dayfile Save and decode keywords data for asd dayfile and save keywords to asd HK by APID series(sdo.lev0_asd_0004) ->dsdf.pl cronjob on production@j0.	**Email with subject:** **JSOC:WARNING:Ingesting MOC dayfiles: status:Possible error ingesting dayfile.**	Warning Message: -->Received count of <3> hkt files and count of <3> xml files from directory </home3/carl/cvs/JSOC/proj/lev0/scripts/hk/pup_dir>. -->When executing script </home/production/cvs/JSOC/proj/lev0/scripts/hk/dsdf.pl> from cron job. -->Check if there is problem. The dayfiles to ingest into data series and delete from directory did not match the count of the dayfiles received. -->Possibly a problem ingesting dayfiles in series because of bad setting of SUMSERVER parameter or SUMS could be not available. -->Possibly not an issue which was caused by the dayfiles not being ingested on previous day(s) therefore the file count received today does not match files ingested.	(1)This usually occurs after getting email described in item #1. The next day there are previous days files on the dropoff directory. So the amount we pick up from Art's pickup directory (128) does not equal the amount on the dropoff directory (128+128). (2)If could not write to SUM/DRMS because it was down.	**Action Problem Described(1):** Probably not Problem. Confirm all 256 files were ingested by viewing log file(log-df-moc) and view the dayfiles are there in the three dayfile series for that day. Where three series are aia.hk_dayfile, hmi.hk_dayfile, sdo.hk_dayfile. **Action for Problem Described(2):** Confirm when SUMS/DRMS is working. Then follow similar procedure shown for item #1. The difference here is that, you will sse dayfiles(64 dayfiles + 64 xml files) on the dropoff directory. Since we had files but could not save, so kept files there for manual work around.

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3 (high) =>**gdfrt.pl**	->HK Level 0 ->Real time Decode and save of keywords to asd series using Minute of data in RTMON Dayfile ->On [production@j0](#) cron job to start script. Script at /home /product ion/cvs/ JSOC/pro j/lev0/s cripts/h k. % *gdfrt.pl* apid=129 pkt_size =128 % nohup monitor _df_rtm on.pl apid=129 &	**(1) j0 server down or crashed email from admins** **(2) Email with subject: JSOC:WARN ING:INGES TING REALTIME DAYFILE FOR APID 129:Dayfi le does not exist** **(3)Email with subject: JSOC:WARN ING:INGES TING REALTIME DAYFILE FOR APID 129:Dayfi le is not getting new packets**	**(1)**j0 server down or crashed. **(2)**Email message in body :Error Message: -->Dayfile </hmisdp-mon/log/packets/ 0x0081/20100204. 0x0081> is not probably there. -->This monitor script will continue running and resend another email notice if the data file is there and data starts flowing and stops again. -->To restart monitor enter command: /home/ production/cvs/J SOC/proj/lev0/sc ripts/hk/monitor _df_rtmon.pl apid=129 -->To stop monitor run command(user=pro duction):/home/p roduction/cvs/JS OC/proj/lev0/scr ipts/hk/stop_mon itor_df_rmon.pl apid=129	Possible Problems: **(1)**J0 server goes down because of crash or runs out of memory. **(2)**The j0 server loses nfs connectio n to /hmisd p-mon/log/p ackets directory or Lockheed is not feeding updates to dayfiles **(3a)**See item above(2). **(3b)** Or could be a short delay when moving to next day at 5pmPDT. **(3c)**Due to install on new egse software on hmisdp-mon and aiasdp-mon. Telemetry collectio n may	**Action Problem Described(1):** Solution is to restart gdfrt.pl process with new LOG file marked with time restarted process. Restart monitor_df_rtmon.pl process. a)Login into j0 as production user on terminal window. Execute: % nohup gdfrt.pl apid=129 pkt_size=128 > LOG-RT-APID0x081-2010.05.11.09_10:00:00 & This process decodes minute of dayfile and saves keywords to sdo.lev0_asd_0004 series. b)Log on to j0 on another terminal window and execute: % nohup monitor_df_rtmon.pl apid=129 & This script monitors if dayfile is getting updated every 5 minutes, if not sends email warning. c) View if passing when processing. Note the is one issue shown in the log file as failed when processing more then 1 minute of data at beginning of run. This is really ok. % tail -f <LOG-RT-<whatever> d)View in LookData tool that data records are getting added to sdo.lev0_asd_0004. **Action Problem Described(2):** -Check j0 can see directory /hmisdp-mon/log/packets. -Contact Rock on why Lockheed not updating data to dayfiles. **Action Problem Described(3a,b,c):** -Check j0 can see directory /hmisdp-mon/log/packets. -Contact Rock on why Lockheed not updating data to dayfiles. -Check logfile: /home2/production/cvs/JSOC/proj/le v0/scripts/hk/log/log-gdfrt-apid-129 -Check logfile if packets are getting processed now. Do tail -f

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				have stopped.	on log. Log gets update every minute. -Check logfile using view for the date and time warning email occurred. Note the log is in UTC but email is in PST. Check if there was a stop of telemetry processing. When started up, check that the processing caught up processing the packets. For example if regular process 14 packets per minute and was stopped for 10 minutes, then there should have been catch up of 140 packets. If catch-up did not occur, then check, if at end of the day, the moc dayfile processing fills the asd series(sdo.lev0_asd_0004). There should be 21600 packets for that day. This moc processing occurs at 12midnight-PST. So check this the next day PST time. If the gap in processing of rtmon dayfile and the moc dayfile processing does not fill gaps, contact Rock. This will cause level 1 to fail to process data, if gap in asd series is over a certain amount of time(>10min?).
4 (high) **=>gdfrt.pl**	->HK Level 0 ->Real time Decode and save of keywords to asd series using Minute of data in RTMON Dayfile ->On [production@j0](#) cron job to start	**(1)Email with subject: JSOC:ERROR:HK Level 0 Real Time Processing failed to decode minute dayfiles.**	(1)ERROR Message: -->Failed to decode dayfiles into keywords and write keywords to hk data series for apid <129>. -->Cause could be that DRMS is down or the drms series does not exist. -->When DRMS comes back up, this script will start to process dayfile were last processed	(1)Possible problems: (a)drms data base is down for service (b)drms data series does not exist.	<u>Action Problem Described(1a):</u> Check with team if drms database is down for service. If down, then as soon as comes back up the script will begin processing where last successfully processed data. Confirm in log file (/home/production/cvs/JSOC/proj/lev0/scripts/hk/log-gdfrt-apid-129) that the processing is being done successfully. If not successfully processing review log for reason why failing. Sidebar 1: If the drms is down for less than two days and this process continues to run. The script will auto process previous days dayfile before starting processing of current dayfile(0

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	script. Script at /home /product ion/cvs/ JSOC/pro j/lev0/s cripts/h k. The cronjob script executio n with argument s: *gdfrt.p l* apid=129 pkt_size =128		data successfully. -->Minute Day File not decoded is:</tmp22/carl/ lev0/hk_minute_d ayfiles/20100607 .0x0081-0- minute> -->Next Email Alert will be sent in 1 hour if problem persists. -->Here is log from decode_dayfile executable showing error messages:		UTC = 5pmPDT). If greater than two day's of drms down, auto processing will not occur for previous files 2-n days back. Action Problem Described(1b): First check the dataseries in log file is existing in drms by doing show_info <name>. If does not exist, will need to create using jsd files auto created at /home/production/cvs/TBL_JSOC/ lev0/hk_jsd_file/prod using create_series. The script should write to series with no errors. Second check, since the gdfrt.pl calls decode_dayfile. decode_dayfile's series name setup could be incorrect in SOURCE_ENV_FOR_HK_DECODE_DAYFILE which is in directory /home/production/cvs/JSO C/proj/lev0/apps. This name change could occur if the HK config files from Lockheed are updated.
5 (low) **=>dsdf.pl**	->HK Level 0 ->RTMON Dayfile Save of only ASD Dayfile - >dsdf.pl cronjob on producti on@j0.	**Email message with this subject: JSOC:WARN ING:Inges ting RTMON dayfiles: status:Po ssible error ingesting dayfile.**	Warning Message: -->Received count of <1> hkt files and count of <1> xml files from directory </hmisdp- mon/log/packets> . -->When executing script </home/productio n/cvs/JSOC/proj/ lev0/scripts/hk/ dsdf.pl> from cron job. -->Check if there is problem. The dayfiles to	The RT Dayfile was not saved to dayfile series. Possible problems: (1)SUMS/D RMS down so could not save files. (2)Path setup to pickup or drop off dayfile	(Step 1)Verify issue: Check if RT dayfile in sdo.hk_dayfile series where date is day of problem and source=rtmon. Check log file at log-df-rtmon for information on warning. Check for dayfile at drop directory defined in dsdf.pl and pickup directory in ingest_dayfile.pl (Step 2)Manual save RT dayfile that failed last night. Execute the manual command to save asd rtmon dayfile to sdo.hk_dayfile. ssh or login to j0 as production user. Since we are save only asd files(apid in hex use 81) use command with apid=81. Set merged

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			ingest into data series and delete from directory did not match the count of the dayfiles received. -->Possibly a problem ingesting dayfiles in series because of bad setting of SUMSERVER parameter or SUMS could be not available. -->Possibly not an issue which was caused by the dayfiles not being ingested on previous day(s) therefore the file count received today does not match files ingested.	was not correct. (3)No dayfile on /hmisd p-mon server. (4)J0 has no access to hmisdp- mon server.	value to 0 which mean save dayfile only. Utilize src=rtmon because file is in rt filename format. The dsnlist is a map to tell script were save dayfile. a)Save dayfile: % cd /home/production/cvs/JSOC/proj/ lev0/scripts/hk % ingest_dayfile.pl apid=81 dsnlist=./df_apid_ds_list_for_rtmo n src=rtmon merged=0 b)Verify files save by checking LookData tool with sdo.hk_dayfile. c)Clean files: % cd /tmp21/production/lev0/hk_rtmon _dayfile % rm <files saved> % vi DF_DELETE_FILE_LIST_RTMON (Remove files saved already) (Step 3)Fix issue, if needed to, described in list issues in Problem Description column. Verify tomorrow no warning email is send. Verify log has no errors.

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6 (low) **=>dsdf.pl**	->HK Level 0 ->RTMON Dayfile Save of ASD apid 129, apid 17,19,21,38,40, and 44 Dayfiles ->dsdf.pl rtmon cronjob on production@j0.	**E**mail message with this subject: **JSOC:WARNING:Ingesting RTMON dayfiles: status:no file loaded today.**	Similar to item #1 except this is for RTMON or Real time day files. This RTMON refers to HK_SOURCE keyword setting in <aia|hmi|sdo>.hk_dayfile series.	(1)Path setup to pickup or drop off dayfile was not correct. (2)No dayfile on /hmi-sdp server. (3)J0 has no access to hmi-sdp server therefore cannot reach dayfile.	<u>(Step 1) Check with j0 </u>see hmisdp-mon directory. Check if asd dayfile there(apid is 0x81). <u>(Step 2) Follow similar step</u> as item #3

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8. (low) **=>getdf.pl**	->HK Level 0 ->HSB Dayfile Save >getdf.pl hsb cronjob on production@j0.	Email message with subject: **JSOC:WARNING:Ingesting HSB dayfiles: status: Found Old HSB Dayfile Not Processed ->Action Required**	Warning Message: --> When checked the HSB Directory found one issue requiring action. --> ISSUE Found: (1)Old Dayfile(s) were found and need to be loaded in dayfile series. --> ACTIONS To Do: (1)Run ingest_dayfile.pl with src=hsb_r to load these old dayfiles. Then confirm loaded in hk_dayfile series and then delete each dayfile(s). --> List of <18> Old Dayfile(s) are: hsb_0478_2010_09_29_03_20_51_00.hkt hsb_0475_2010_09_14_00_36_04_00.hkt hsb_0451_2010_09_14_00_36_59_00.hkt . . .	(1)There was reprocessing of older telemetry data. The ingest_lev0 executable write HK packets to HSB dayfile. The regular process that save HSB dayfiles only saves current days dayfile. It does not save older dated dayfiles.	Action for Problem Described(1): Step(1)(a)Check hsb dayfile have not been already saved to <aia|hmi>.hk_dayfile series. Go to /tmp22/production/lev0/hk_hsb_dayfile and check old dayfiles or use list in warning email to check. Go to JSOC LookupTool and search for entry. For example query for hmi.hk_dayfile[<day date>][][hsb] to check hmi dayfiles(400 values) with apid 445, 481,etc. Check aia apids(500 values) by going to aia.hk_dayfile[<day date>][][hsb]. If dayfile there, then did save the first created hsb dayfile created and this dayfile is a reprocessed dayfile so need to save with hsb_r source as discussed next. If hsb dayfile NOT there, then save this dayfile using source value hsb and follow same procedure below for only old dayfiles listed in email. Remember the latest dayfiles there should be left alone, since they are saved and removed automatically by cron job at 9pmPDT. Now we begin a manual process to save hsb dayfiles. See steps 1b-1e. Step (1)(b) go to production@j0 % ssh -l production j0 % cd /home/production/cvs/JSOC/proj/lev0/scripts/hk Step(1)(c)Save files in dayfile series using script. For day 9/29 use this. Important to note to use hsb_r. Also do not save or delete current dayfiles being updated, let auto process do this(getdf.pl hsb). ==>Best Way %ingest_dayfile.pl apidlist=./df_apid_list_day_file_hsb_r start=20100929 end=20100929 dsnlist=./df_apid_ds_list_for_h

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					sb_r src=hsb_r merged=0 ==>Slower Way % ingest_dayfile.pl apid=478 start=20100929 end=20100929 dsnlist=./df_apid_ds_list_for_h sb_r src=hsb_r merged=0 .... (repeat command with different times and/or apid as needed) Step 1(d) Now, check got loaded using lookdata web tool for <aia | hmi>.hk_dayfile Step 1(e) Clear list of old hsb dayfiles to delete from DF_DELETE_FILE_LIST located in /home/production/cvs/JSOC/pr oj/lev0/scripts/hk. This step needs to be done because the auto script getdf.pl uses DF_DELETE_FILE_LIST file too. It is used to remove hsb dayfiles that have been saved to series. Step 1(f) Remove files from tmp22/production/lev0/hk_hsb_da yfile. Here is example Check if this is list want to remove by doing ls command. %ls /tmp22/production/lev0/hk_h sb_dayfile/*_09_29* Now carefully do remove. %rm /tmp22/production/lev0/hk_h sb_dayfile/*_09_29*

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(9)(high) =>dsdf.pl(9)(high) =>dsdf.pl	Effects RTMON and MOC Dayfiles: ->HK Level 0 ->RTMON Dayfile Save of ASD apid 129, apid 19 and apid 44 Dayfiles - >dsdf.pl rtmon cronjob on production@j0. ->HK Level 0 ->MOC Dayfile Save and decode keywords data for asd dayfile and save keywords to asd HK by APID series(s do.lev0_ asd_0004). Also save dayfile and do average processing of apid	**Missing records for aia.tempe rature_su mmary_300 s or/and or hmi.tempe rature_su mmary_300 s series** causes level 1 processin g to stop processin g. Usually email from Jim or John Serafin or Rock. There is no automatic email warning yet on this issue.	See Error or Warning column.	There are two possible causes of issue. **Issue(1):** The dayfile has missing packets so records created from data are also missing. **ISSUE(2):** The cronjobs did not run last night because either systems down or retrieve of new moc dayfiles not successfu l. **ISSUE (1) and ISSUE (2) effect on level One processin g:** This causes aia and hmi level one to stop processin g because it is a requireme	**Solution for ISSUE(1):** (1a)Check series for missing records to confirm issue. --For apid 19:check hmi.temperature_summary_300s has 288 records per day. -->For apid 44: Check aia.temperature_summary_300s has 288 records per day. (1b)Check if ran correctly last night by checking log files for rtmon and moc dayfile processing. -->Check rtmon logfile at /home2/production/cvs/JSOC/proj/le v0/scripts/hk/log_df_rtmon -->Check rtmon logfile at /home2/production/cvs/JSOC/proj/le v0/scripts/hk/log_df_moc (1c)Check if dayfile with issue has no errors in xml quality information file paired with each dayfile. ---->Go to datatool and view xml dayfile and check is there is missing data in summary line. (1d)Email Rock and team effected with issue on findings. (1e)Implement fix if there is missing data. -->Request recreate of moc dayfile with new version. Rock or you can do(see ticket). -->When Goddard places new file on moc product server the process will work automatically when the dsdf.pl moc is run via Art's script on jsoc@j0. (1f)Verify gaps were filled by checking series records for that day again. (1g)If gap not filled then get approvals from Rock to run the set_keys command to fill gaps. Here is example of filling gap for time 2010.11.29_20:40:00_UTC where DATE is current time when ran command and T_START time is time of record want to fill in(2010.11.29_20:40:00_UTC):

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	19 and 44 to series. ->Art's cronjob on jsoc@j0.			nt to have 288 records per day in both series.	set_keys -c ds=hmi.temperature_summary_300s T_START=2010.11.29_20:40:00_UTC NU MPTS=0 DATE=2011-011-21T20:01:16Z The DATE parameter can be in UTC time(2011.03.23_19:00:00_UTC) or Z time as shown. The NUMPTS=0 since we have no packet data to calculate average data of keywords. **SIDENOTE:** Example email to Goddard to recreate dayfile: --- Original Message --- Subject: missing packets in moc level 0(lzp) day file for apid 44 ->0044_2011_012_01.hkt Date: Fri, 21 Jan 2011 11:26:16 -0800 From: Carl Cimilluca <carl@sun.stanford.edu> To: Brett Sapper <Brett.P.Sapper@nasa.gov>, Christopher.B.VanDyke@nasa.gov CC: Rock Bush <rock@solarpost.stanford.edu>, Carl Cimilluca <carl@sun.stanford.edu> Brett, Chris, We are seeing a gap in packets for the moc level 0 dayfile for apid 44 between these times below. 2011.012_17:40:49.00_UTC ----Gap in packets------ 2011.012_18:22:29.00_UTC This is about a 41 minutes gap where we have no packets. This is about

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					123 missing packets. Can your team recreate an apid 44 dayfile for doy 12 with version setting to 02(i.e., 0044_2011_012_02.hkt) and drop off file on MOC Product Server? Our automatic scripts will pickup dayfile tonight at about 11pm-12am PDT Thanks Carl Cimilluca Stanford University- JSOC Team **Solution for ISSUE(2):** (2a)Confirm cronjobs did not run last night by checking log files (log-df-moc and log-df-rtmon) at j0:/home/production/cvs/JSOC/proj/lev0/scripts/hk. (2b)If occurred for just that one day because of down systems or failed cronjob then the process will process the moc dayfiles from yesterday and today files tonight and this should fix issue. (2c)If problem persist fix out source of problem. Possible causes are: ---down h/w ---down sums/drms ---down cronjob for rtmon on production@j0 ---down Art's retrieve script of moc down files. (2d)Once back up, the dayfiles from moc product server should be brought over and the cronjobs for moc should process all dayfiles (9) (high) **=>dsdf.pl**for all down days. (2e)The rtmon dayfile load_m3sd

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					processing needs to be done manually,only if needed to fill gaps. Check with Rock. Should save rtmon dayfiles manually using ingest_dayfile.pl for missed days. We save apid 17,19,21,38,40, and 44 dayfiles to dayfile series using source setting rtmon by using dayfile on fileserver hmimon-sdp. Example steps to do: ===>Login as production@j0. ==>Copy over rtmon files to save to dropoff directory from hmimon-sdp. The drop directory is a /tmp22/production/lev0/hk_rtmon_ dayfile. ===>go to script directory % cd /home/production/cvs/JSOC/proj/ lev0/scripts/hk ===>run script using hex value for 129(hex is 81),17(hex is 11), etc: % ingest_dayfile.pl apid=81 dsnlist=./df_apid_ds_list_for_rtmo n src=rtmon merged=0 ===>Or do all apid by doing: % ingest_dayfile.pl apidlist=./df_apid_list_day_file_r tmon start=20080518 end=20080530 dsnlist=./df_apid_ds_list_for_rtmo n src=rtmon merged=0 ===>clean up by deleting items in DF_DELETE_FILE_LIST_RTMON file ===>clean up by removing files in the dropoff directory

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(10)(high) **=>dsdf.pl**	Effects RTMON and MOC Dayfiles : ->HK Level 0 ->RTMON Dayfile Save of ASD apid 129, apid 19 and apid 44 Dayfiles - >dsdf.pl rtmon cronjob on producti on@j0. ->HK Level 0 ->MOC Dayfile Save and decode keywords data for asd dayfile and save keywords to asd HK by APID series(s do.lev0_ asd_0004). Also save dayfile and do average processi ng of apid	JSOC:WARN ING:M3SD Processin g and Decode Dayfile Processin g of all **MOC** dayfiles NOT done. OR JSOC:WARN ING:M3SD Processin g and Decode Dayfile Processin g of all **RTMON** dayfiles NOT done.	Warning Message(1): -->Did not process the expected <6> dayfiles using load_m3sd executable. -->Only processed <12> dayfile(s) -->Check if the dayfiles for apid 7 19, 21, 38, 40 and 44 have been retrieved and ingested in < hmi | aia >.hk_dayfile series . -->If dayfiles exist, get dayfiles and rerun with load_m3sd executable. Warning Message(2): -->Did not process the expected <1> dayfiles using decode_dayfile executable. -->Note sdo.lev0_asd_0 004 was not updated today -->Only processed <2> dayfile(s). -->Check if the dayfiles for apid 129	**Problem (1):** There were expected 6 files to be processed . If 12 were processed then the night before might not have been processed because Art's script did not run or because the drms/sums might have been down and could not process dayfiles to drms data series. **Problem (2):** There was a retransmi t of dayfile and the version of dayfile was updated to version 02. Sometimes dayfiles are resent	**Problem(1)** (1a)Check logfile on what happened. ==>**For MOC** Dayfile check log at /home2/production/cvs/JSOC/proj/le v0/scripts/hk/log-df-moc ==>**For RTMON Dayfile** check log at /home2/production/cvs/JSOC/proj/le v0/scripts/hk/log-df-rtmon (1b)Check if log shows did not run the day before. If did not run the day before need to find out reason it did not run. **Problem(2)** (2a)Check logfile on what happened. ==>For MOC Dayfile check log at /home2/production/cvs/JSOC/proj/le v0/scripts/hk/log-df-moc ==>For RTMON Dayfile check log at /home2/production/cvs/JSOC/proj/le v0/scripts/hk/log-df-moc (2b)Check if they sent us different versions of dayfiles that might be updates. The revised dayfiles could be resent with updated data. Check version, which could say 02(i.e. , see 02 value in this file 0001_2011_097_02.hkt). Or it could be a resent of dayfile with a doy(day of year) that was not last night doy. For example,today is doy 097 and we got files showing doy 037(0001_2011_037_02.hkt) with updated version. (2c)Send email to team on your investigation. For example, there was a retransmit of doy dayfiles with verision 02 for doy=xxx. (2d)Also send any information if these files failed to get processed using load_m3sd(saves to 6 telemetry averaging series), decode_dayfile(save data to sdo.lev0_asd_0004 series) and ingest_lev0.pl(save dayfile to <sdo|hmi|aia>.hk_dayfile series)

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	19 and 44 to series.		has been retrieved and ingested in sdo.hk_dayfile series . -->If dayfile exists, get dayfiles and rerun with decode_dayfile executable.	with more complete data.	