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1          TITLE   JORDAT - JOB DATA AREA (FIRST 140 LOC OF USER AREA) V407
2          SUBTTL  T, HASTINGS/TH TS 15 MAR 69
3          000407 IFNDEF UJORDAT,<VJOBOT=407
4          INTERN VJOBOT          INPUT VERSION NUMBER IF NOT USER VERSION
5          >
6          ;TO ELIMINATE MOST OF UNWANTED GLOBALS USERS
7          ;ASSEMBLING INSTRUCTIONS TO MAKE USER VERSION FOR CUSP:
8          ;DSK:JOB DAT,TTY:,DSK:JOB DAT
9          ;UJOB DAT=1
10         ;*Z
11         IFDEF DEV DAT,<PRINTX PLEASE REASSEMBLE WITHOUT S,MAC
12         >
13
14         IFNDEF UJORDAT,<
15         ENTRY DATJOB
16         000000 DATJOB:
17         >
18
19         ;THIS AREA PROVIDES STORAGE OF ITEMS OF INTEREST TO BOTH
20
21         ;THE MONITOR AND THE USER
22
23         ;MACRO TO DEFINE SYMBOLS FOR MONITOR USE ONLY
24         ;THESE MAY BE CHANGED TO SUIT MONITOR
25
26         DEFINE M(SYMBOL,VALUE,LENGTH)
27         <          SYMBOL=VALUE
28         IFNDEF UJORDAT,<INTERNAL SYMBOL> ;MAKE GLOBAL ONLY IF ASSEM FOR MONITOR
29         LOC=VALUE+LENGTH>
30
31         ;MACRO TO DEFINE SYMBOLS FOR USER USE
32         ;THESE CANNOT BE CHANGED WITHOUT INVALIDATING OLD SAVED FILES
33
34         DEFINE U(SYMBOL,VALUE,LENGTH)
35         <          SYMBOL=VALUE
36         ENTRY SYMBOL
37         LOC=VALUE+LENGTH>
38
39         ;MACRO TO DEFINE PARAMETERS OF INTEREST TO MONITOR ONLY
40         ;THESE MAY BE CHANGED TO SUIT MONITOR
41         ;THESE WILL NOT PRINT OUT WITH DDT
42
43         DEFINE XP(SYMBOL,VALUE)
44         <          SYMBOL==VALUE
45         IFNDEF UJORDAT,<INTERNAL SYMBOL>> ;MAKE GLOBAL ONLY IF ASSEM FOR MONITOR
46
47         ;DEFINE MONITOR ACS AS LOCALS SO JOB DAT DOES NOT NEED TO BE ASSEMBLED WITH S,MAC
48         ;THIS IS SO THE USER IS NOT FACED WITH A LOT OF INTERNAL SYMBOLS
49         ;WHICH MAY CONFLICT WITH HIS AND GIVE HIM MULTIPLY DEFINED GLOBALS
50         000003 PDP=3
51         000007 PROG=7

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52      000000 M JOBAC,0,20+      JOBAC=0
53                                     PLACE WHERE USER ACS ARE STORED ON UO0 CALLS
54                                     IE RELATIVE 0-17 IN USER AREA
55      000020 M JORDAC,LOC,17+      JORDAC=LOC
56                                     PLACE WHERE HARDWARE ACS(0-16) ARE STORED
57                                     WHEN JOB IS INACTIVE, THESE ARE EITHER THE
58                                     USERS AC IF JOB WAS STOPPED IN USER MODE
59                                     OR ARE THE EXEC IF STOPPED IN EXEC MODE
60      000023 XP JOBDPD,JORDAC+PDP+      JOBDPD==JORDAC+PDP
61                                     PDP DUMPED HERE
62      000027 XP JOBDPG,JORDAC+PROG+      JOBDPG==JORDAC+PROG
63                                     PROG DUMPED HERE
64      000034 XP JOBD14,JORDAC+14+      JOBD14==JORDAC+14
65      000035 XP JOBD15,JORDAC+15+      JOBD15==JORDAC+15
66      000036 XP JOBD16,JORDAC+16+      JOBD16==JORDAC+16
67      000037 XP JOBD17,JORDAC+17+      JOBD17==JORDAC+17
68      000040 U JOBUU0,40,1+      JOBUU0=40
69      000041 U JOB41,41,1+      USER UO0 TRAP LOC.(UO0 STORED HERE)
70      000042 U JOBERR,42,1+      JOB41=41
71      000043 M JOBENB,43,1+      USER UO0 JSR LOCATION
72      000044 U JOBREL,44,1+      I(SET FROM HIGH SEG DATA AREA ON GET IN NO LOW FILE)
73      000045 M JOBPD1,LOC,0+      JOBERR=42
74      000046 XP JOBPD1,JOBPD1-1+      ILH UNUSED-SAVE FOR LATER THINGS, SO USER PROGRAMS
75      000047 XP JOBPD3,JOBPD1+3+      I SHOULD IGNORE LH IN ALL PROGRAMS
76      000048 U JOBLT,JOBPD1,3+      IRH=COUNT OF NO. OF ERRORS IN RPG(RAPID PROGRAM
77      000049      JOBLT=JOBPD1      I GENERATION) SEQUENCE OF CUSPS,
78      000050      JOBLT=JOBPD1      I NOT CHANGED FROM GET TO GET,
79      000051      JOBLT=JOBPD1      JOBENB=43
80      000052      JOBLT=JOBPD1      ILH UNUSED
81      000053      JOBLT=JOBPD1      IRH=APR CONSO FLAGS FOR USER APR TRAPPING
82      000054      JOBLT=JOBPD1      ISET BY CALL (SIXBIT /APRENB/)
83      000055      JOBLT=JOBPD1      JOBREL=44
84      000056      JOBLT=JOBPD1      ILH=0,RH=HIGHEST REL. ADR. IN USER AREA(IE LOW SEGMENT)
85      000057      JOBLT=JOBPD1      ISET BY MONITOR EACH TIME JOB RUNS OR CHANGES CORE SIZE
86      000058      JOBLT=JOBPD1      JOBD1=LOC
87      000059      JOBLT=JOBPD1      I FIRST LOC. OF SYSTEM UO0 PUSHDOWN LIST
88      000060      JOBLT=JOBPD1      JOBD1=JOBPD1-1
89      000061      JOBLT=JOBPD1      I FIRST LOC.=1
90      000062      JOBLT=JOBPD1      JOBD3==JOBPD1+3
91      000063      JOBLT=JOBPD1      I PLACE FOR STORING FIRST PUSH IN A UO0 ROUTINE(THIRD ENTRY)
92      000064      JOBLT=JOBPD1      I USED BY RUN AND GETSEG UOOS
93      000065      JOBLT=JOBPD1      JOBLT=JOBPD1
94      000066      JOBLT=JOBPD1      I 3 WORDS USED BY LINKING LOADER TO MOVE PROGRAM DOWN
95      000067      JOBLT=JOBPD1      I BEFORE CALLING EXIT,
96      000068      JOBLT=JOBPD1      I OK TO USE EXEC PD LIST BEFORE EXECUTING UO0
97
98
99
100
101
102

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123      000072 LOC=72
124      777777 777752 XP MJOBDP,JOBDPDL-LOC+      MJOBDP==JOBDPDL-LOC
125                                          ;MINUS LENGTH OF PUSHDOWN LIST
126      777777 777753 XP MJOBDP1,MJOBDPD+1+      MJOBDP1==MJOBDPD+1
127                                          ;=-LENGTH+1
128      000072 XP JOBPRT,LOC+      JOBPRT==LOC
129                                          ;FIRST LOC PROTECTED BY BEING COPIED INTO MONITOR
130      000073 XP JOBPRI,JOBPRT+1+      JOBPRI==JOBPRT+1
131                                          ;FIRST LOC+1
132      000072 M JOBRCU,LOC,1+      JOBRCU=LOC
133                                          ;HIGHEST USER IO CHANNEL IN USE
134                                          ;ONLY JOBJDA,...JOBJDA+C(JOBRCU) ARE COPIED INTO
135                                          ;MONITOR WHEN JOB IS RUN, 0 MEANS NONE OR
136                                          ;CHAN, 0 IN USE, NEG LH MEANS SAVEGET HAS ACTIVE IO(RH STILL
137                                          ; HIGHEST CHAN IN USE)
138      000073 M JOBPC,LOC,1+      JOBPC=LOC
139                                          ;JOB PC WHEN JOB INACTIVE
140      000074 U JOBDOT,74,1+      JOBDOT=74
141                                          ;LH UNUSED,RH=STARTING ADDRESS OF USER DDT

142      000073 XP JOBSAV,JOBDOT-1+      JOBSAV==JOBDOT-1
143                                          ;FIRST LOC.-1 WRITTEN BY SAVE COMMAND
144      000075 M JOBJDA,LOC,20+      JOBJDA=LOC
145                                          ;JOB DEVICE ASSIGNMENT TABLE
146      000076 XP JOBSV,JOBJDA+1+      JOBSV==JOBJDA+1
147                                          ;LH=0000 DONE SO FAR, RH=ADR. OF DEVICE DATA BLOCK IN MONITOR
148                                          ;FIRST LOC READ INTO OR WRITTEN FROM BY NEW SAVGET
149                                          ; WHICH ZERO COMPRESSES ON ALL DEVICES
150                                          ; THIS LOC CONTAINS THE FIRST IOWD WITH NO-NO. OF DATA WORDS
151                                          ; IN LH, FIRST ADR-1 IN RH
152                                          ; MONITOR SUPPRESSES STORING IN RH OF JOBHRL DURING
153                                          ; SAVEGET(USRCU NEG.)
154                                          ; SO THAT OLD ZERO COMPRESSED DECTAPE FILES WILL
155                                          ; ALWAYS FIT IN CORE (JOBHRL USRD TO BE 0)
156                                          ; THIS CHECK COULD HAVE BEEN ELIMINATED, IF JOBSV HAD BEEN
157                                          ; DEFINED AS JOBHRL+1(JORSYM), HOWEVER JOBSYM ALMOST
158                                          ; ALWAYS HAS NON-ZERO DATA, SO SAVEGET WOULD HAVE TO
159                                          ; BE WRITTEN TO EXPAND DOWN OR UP RATHER THAN JUST UP
160      000075 XP JOBSVM,JORSV-1+      JORSVM==JORSV-1
161                                          ;FIRST LOC-1, USED FOR SETTING UP DUMPE MODE
162      000101 XP JOBSV3,JORSV+3+      JOBSV3==JORSV+3
163                                          ; COMMAND LIST FOR SAVGET
164                                          ;LOC WHICH SHOULD NOT CONTAIN 0 UNLESS FILE WAS
165                                          ; CREATED BY CONVERTING OLD FORMAT TO NEW FORMAT
166      000072 XP JOBSVD,JORSVM-JOBSAV+      JOBSVD==JORSVM-JOBSAV
167                                          ; DECTAPE USING CONVERT PROGRAM
168      000073 XP JOBSDP,JORSV-JOBSAV+      JOBSDP==JORSV-JOBSAV
169                                          ;NO. OF LOCATIONS TO MOVE DOWN OLD (NON-COMPRESSED DSK)
170                                          ; SAVE FILES WHICH WERE ALWAYS WRITTEN FROM JOBSAV+1
171                                          ; WHICH ARE ALWAYS WRITTEN FROM JOBSAV+1 AND HAVE
172                                          ; AN IOWD ADDED ON FRONT SO IT LOOKS LIKE A COMPRESSED FILE

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154          000106 U JOBCN6,JOBIDA+11*          JOBCN6=JOBIDA+11
155          ; 16 TEMP LOCATIONS USED BY CHAIN TO HOLD ERROR ROUTINE
156          ; WHEN IT LOADS NEXT CHAIN LINK.(JOBIDA+11...16)
157          ; THESE LOCATIONS ARE OK TO USE SINCE CHAIN RELEASES ALL
158          ; USER CHANNELS AND MONITOR WILL NOT DESTROY THEM
159          ; WHEN JOB CONTEXT IS SWITCHED
160          000114 XP JOBSDD,JORIDA+17*          JOBSDD=JOBIDA+17
161          ; PLACE TO SAVE JOBDOT ON SAVE SO ZERO EXPANSION ON GET
162          ; ALWAYS MOVES UP
163          000113 XP JOBSD1,JORSD-1*          JOBSD1=JOBSDD-1
164          ; FOR COMPUTING JORD'S
165          777777 777775 XP JOBJMH,JORHCU-JOBIDA*          JOBJMH=JORHCU-JOBIDA
166          ; JOBJMH=JOBIDA
167          ; USED BY ANYACT ROUT. IN CORE1
168          000114 XP JOBPFI,JORIDA+17*          JOBPFI=JOBIDA+17
169          ; HIGHEST LOC. IN JOB DATA AREA PROTECTED FROM IO
170          777777 777774 XP MJORCK,JORDAC-JOBPFI*          MJORCK=JORDAC-JOBPFI
171          ; AREA CHECKSUMMED DURING SWAPPING
172          000115 U JOBHRL,115,1*          JOBHRL=115
173          ; LH IS FIRST FREE LOC IN HIGH SEG RELATIVE TO ITS ORIGIN
174          ; ANALOGOUS TO LH OF JOBSA FOR LOW SEG
175          ; (IN OTHER WORDS LH=LENGTH TO SAVE ON SAVE COMMAND)
176          ; SET BY LINKING LOADER
177          ; RH ANALOGOUS TO JOBREL, IE HIGHEST LEGAL
178          ; USER ADDRESS IN HIGH SEG. SET BY MONITOR EVERY TIME
179          ; USER RUNS. IF JOBHRL=0, JOB DOES NOT HAVE A HIGH SEG
180          ; USER PROGRAMS SHOULD BE WRITTEN SO THAT
181          ; THEY CAN BE ONE OR TWO SEGMENT PROGRAMS. JOBHRL
182          ; CAN BE TESTED FOR NON-ZERO TO SEE IF HIGH SEG EXISTS
183          000116 U JORSYM,116,1*          JORSYM=116
184          ; POINTER TO LOADER AND DOT SYMBOL TABLE POINTER
185          000117 U JOBUSY,117,1*          JOBUSY=117
186          ; POINTER TO UNDEFINED SYMBOL TABLE
187          ; SET BY LOADER, NOT YET USED BY DOT
188          000120 U JORSA,120,1*          JORSA=120
189          ; LH=INITIAL FIRST FREE LOCATION IN LOW SEG (SET BY LINKING LOAD
190          ER)
191          ; RH=STARTING ADDRESS OF USER PROGRAM

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192		U JOBFF,121,1	;(SET FROM HIGH DATA AREA ON GET IF NO LOW FILE)
193			;(CURRENT FIRST FREE LOCATION IN LOW SEG
194			;(USED AND UPDATED BY MONITOR TO ASSIGN I/O BUFFERS IN TOP
195			;(OF USER AREA
196			;(USER MAY CHANGE CONTENTS IN ORDER TO AFFECT PLACEMENT OF
197			;(BUFFERS BY MONITOR
198	000122	U JOBS41,122,1*	JORS41=122
199			;(C(JOB41) SAVED HERE ON SAVE COMMAND
200			;(RESTORE FROM HERE ON GET
201	000123	M JOREXM,LOC,1*	JOREXM=LOC
202			;(LAST LOC EXAMINED OR DEPOSITED USING
203			;(D OR E COMMANDS
204			;(LH=-1 IF LAST COM WAS AN E, 0 IF IT WAS A D
205	000124	U JOBRFN,124,1*	JORFN=124
206			;(REENTER ADDRESS FOR REENTER COMMAND
207			;(SET FROM HIGH DATA AREA ON GET IF NO LOW FILE)
208	000125	U JOBAPR,125,1*	JOBAPR=125
209			;(PLACE TO TRAP TO IN USER AREA ON APR TRAP
210			;(ENABLED BY APREN8 UO0
211	000126	U JOBCNI,126,1*	JOBCNI=126
212			;(APR IS CONIED INTO C(JOBCNI) ON APR TRAP
213	000127	U JOBTPC,127,1*	JOBTPC=127
214			;(PC IS STORED HERE ON USER APR TRAP
215	000130	U JOBOPC,130,1*	JOBOPC=130
216			;(OLD PC IS STORED HERE ON START,DDT,REENTER,
217			;(STARTC COMMANDS
218	000131	U JOBCHN,131,1*	JOBCHN=131
219			;(LH=FIRST LOC AFTER FIRST FORTRAN 4 LOADED PROGRAM
220			;(RH=FIRST LOC AFTER FIRST FORTRAN 4 BLOCK DATA
221			;(TO BE USED FOR JOB CHAINING
222	000132	M JOBF0V,LOC,1*	JOBF0V=LOC
223			;(DEV. DATA BLOCK ADR. FOR FINISH COMMAND

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224          000133 U JORCOR,133,1+      JORCOR=133
225                                          ;(SET FROM HIGH DATA AREA ON GET IF NO LOW FILE)
226                                          ;LH=HIGHEST LOCATION LOADED(LOW SEG) WITH PROG OR DATA
227                                          ; SET BY LOADER(RLOCK STATEMENTS DO NOT COUNT HERE)
228                                          ; SAVE WILL NOT WRITE THE LOW SEG OF A TWO SEG PROG,
229                                          ; IF LH IS 137 OR LESS AND GET WILL NOT READ
230                                          ;RH=SIZE OF CORE FOR LOW SEG ON RUN,SAVE,GET COM.
231                                          ;(SET FROM HIGH DATA AREA ON GET IF NO LOW FILE)
232                                          ;SET BY SAVE TO CORE ASSIGNMENT TO BE USED ON GET
233                                          ; (UNLESS USER TYPES A LARGER ARG TO GET)
234                                          ; TO FIRST FREE LOC-1(OR TOP IF USER ODT) OR
235                                          ; TO USER'S CORE ARG TO SAVE IF BIGGER
236                                          ;GET ALWAYS SETS RH TO INITIAL CORE ASSIGNMENT SO THAT PROG
237                                          ; CAN RESTORE CORE TO ORIGINAL ASSIGNMENT ON RESTARTING
238                                          ;134-136 UNUSED
239          000137 U JOBVER,137,1+      JOBVER=137
240                                          ;CONTAINS VERSION NO.(OCTAL) OF CUSP BEING RUN IN RH
241                                          ;PROGRAMMER NUMBER IN LH OF PROGRAMMER MAKING LAST CHANGE
242                                          ;GET LOADS FROM SAVE FILE, NEVER CONVERTED
243                                          ;TO DECIMAL BY MAN OR MACHINE, E 137 WILL PRINT VERSION NO.
244                                          ;SET BY LOC 137 IN CUSP SOURCE
245                                          ;(SET FROM HIGH DATA AREA ON GET IF NO LOW FILE)
246          000140 U JOBDA,140+          JOBDA=140
247                                          ;FIRST LOC NOT USED BY JOB DATA AREA
248

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249      ; HIGH SEGMENT DATA AREA
250      ; LOCATIONS ARE RELATIVE TO BEGINNING OF HIGH SEGMENT, SINCE
251      ; THE HIGH SEGMENT CAN BEGIN AT 400000 OR HIGHER
252      ; THIS AREA IS USED TO INITIALIZE CERTAIN LOCATIONS IN THE LOW SEG JOB DATA AREA
253      ; IN CASE THERE WAS NO LOW SEG SAVED. (LH JOBCOR 137 OR LESS AS SET BY LOADER)
254      ; LOW SEG JOB DATA AREA LOCATIONS SET FROM HIGH SEG DATA AREA ARE INDICATED ABOVE BY:
255      ; (SET FROM HIGH SEG IF NEC)
256      ; THESE LOCATIONS ARE SET FROM LOW JOB DATA AREA ONLY IF HIGH SEG IS NON-SHARABLE
257      ; AT THE TIME THE SAVE IS PERFORMED (SHRSEG=3 IN JBTSTS)
258
259      000000 XP JOBSA,0+      JOBSA==0
260      ;USED TO RESTORE JOBSA
261      000001 XP JOBH41,1+    JOBH41==1
262      ;USED TO RESTORE JOBH41
263      000002 XP JOBHCR,2+    JOBHCR==2
264      ;USED TO RESTORE JOBCOR(BOTH HALVES)
265      000003 XP JOBHRN,3+    JOBHRN==3
266      ;LH RESTORES LH OF JOBHRL(FIRST REL, FREE LOC, IN HIGH)
267      ;RH RESTORES JOBRN,LH SET TO 0 FOR FUTURE
268
269      000004 XP JOBHVR,4+    JOBHVR==4
270      ;RESTORE BOTH HALVES OF JOBRV
271      000004      XP JOBPOP,4+ JOBPOP==4
272      ;HIGHEST LOC TO BE RESTORED(POPPED) BY GET
273      000010 XP JOBHDA,10+   JOBHDA==10
274      ;FIRST LOC NOT USED BY HIGH SEG DATA AREA
275      ;LOADER WILL LOAD FIRST WORD HERE
276      ;VALUE CANNOT BE CHANGED WITHOUT
277      ;CHANGING LOADER AND RELOADING TO MAKE NEW SAVE FILES

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END

NO ERRORS DETECTED

PROGRAM BREAK IS 000000

DATJOB	000000	INT	JOP41	000041	INT	JORAC	000000	INT
JORAPR	000125	INT	JOBBLT	000045	INT	JORCHN	000131	INT
JORCN6	000106	INT	JORCNI	000126	INT	JORCOR	000133	INT
JORD14	000034	INT	JORD15	000035	INT	JORD16	000036	INT
JORD17	000037	INT	JORDA	000140	INT	JORDAC	000020	INT
JOPDNT	000074	INT	JOROPD	000023	INT	JORUPG	000027	INT
JORENB	000043	INT	JORERR	000042	INT	JOREXM	000123	INT
JORFNV	000132	INT	JORFF	000121	INT	JORH41	000001	INT
JORHCR	000002	INT	JORHCU	000072	INT	JORHDA	000010	INT
JORHPL	000115	INT	JORHRN	000003	INT	JORHSA	000000	INT
JORHVR	000004	INT	JORJDA	000075	INT	JORJMH	777777	777775
JOROPC	000130	INT	JORPC	000073	INT	JORPD1	000045	INT
JORPD3	000047	INT	JORPDL	000044	INT	JORPFI	000114	INT
JORPDP	000004	INT	JORPR1	000073	INT	JORPRT	000072	INT
JORREL	000044	INT	JORREN	000124	INT	JORS41	000122	INT
JORSA	000120	INT	JORS4V	000073	INT	JORSB1	000113	INT
JORSDD	000114	INT	JORSBP	000003	INT	JORSV	000076	INT
JORSV3	000101	INT	JORSVD	000002	INT	JORSVM	000075	INT
JORSYM	000116	INT	JORTPC	000127	INT	JORUSY	000117	INT
JORUUD	000040	INT	JORVER	000137	INT	LOC	000140	
MJOBCK	777777	777774	MJOBP1	777753	INT	MJOBPD	777777	777752
PDP	000003		PRNG	000007		VJOBNT	000407	INT

DATJOB	15	16#							
NEVDAT	11								
JOB41	76#	77							
JOBAC	53#	54							
JOBAPR	208#	209							
JORBLT	99#	100							
JORCHN	218#	219							
JORCN6	154#	155							
JORCNI	211#	212							
JORCOR	224#	225							
JORD14	66#	67							
JORD15	68#	69							
JORD16	70#	71							
JORD17	72#	73							
JORDA	246#	247							
JORDAC	56#	57	62	64	66	68	70	72	170
JORDDT	120#	121	122						
JORDPD	62#	63							
JORDPG	64#	65							
JORENB	85#	86							
JORERR	79#	80							
JOREXM	201#	202							
JORFDV	222#	223							
JORFF	193#	193							
JOBH41	261#	262							
JORHCR	263#	264							
JORHCU	112#	113	165						
JORHDA	272#	273							
JORHRL	172#	173							
JOBHRN	265#	266							
JORHSA	259#	260							
JORHVR	268#	269							
JORJTA	124#	125	127	154	155	160	165	168	
JORJWH	165#	166							
JOROPC	215#	216							
JOBPC	118#	119							
JORPN1	92#	93	94	99	100				
JORPN3	96#	97							
JORPNL	94#	95	96	104					
JORPFI	168#	169	170						
JORPOP	270#	271							
JORPR1	110#	111							
JORPRT	108#	109	110						
JORREL	89#	90							
JORRFN	205#	206							
JORS41	198#	199							
JORSA	188#	189							
JORSAV	122#	123	147	150					
JORSO1	163#	164							
JORSND	160#	161	163						
JORSNP	150#	151							
JORSV	127#	128	140	143	150				
JORSV3	143#	144							

[illegible]

[illegible]