

```
0 ( -----Analysis Overlay Prefix-----
1 ( Science Officer's Analysis           A
2 ( Science Officer's Analysis  fields
3 ( Science Officer's Analysis  .OBJECT  A
4 ( Science Officer's Analysis  .OBJECT  A
5 ( Science Officer's Analysis  .SIZE ?.CERTAIN  A
6 ( Science Officer's Analysis  .TYPE      A
7 ( Science Officer's Analysis  .SHIELDS .ACCEL  A
8 ( Science Officer's Analysis  .WEAP .objects  A
9 ( Science Officer's Analysis  .ORBIT      A
10 ( Science Officer's Analysis  .SURF      A
11 ( Science Officer's Analysis  .GRAV .ATMO  A
12 ( Science Officer's Analysis  .WEATH     A
13 ( Science Officer's Analysis  .SPEC .ECOS  A
14 ( Science Officer's Analysis  .STABLE    A
15 ( Science Officer's Analysis           A
16 ( Science Officer's Analysis           A
17 ( -----Analysis Overlay Suffix-----
```

0

3

```

0 ( -----Analysis Overlay Prefix-----9/6/85) ( Science Officer's Analysis .OBJECT      AWK 9/06/85 )
1
2 VOCABULARY ANALYZE-VOC IMMEDIATE                                HEAD: .UKN ( -- ) T: ." UNKNOWN" T;
3 107 OPEN-OVERLAY                                                HEAD: OB1.1 ( -- ) T: ." VESSEL" T;
4 ANALYZE-VOC DEFINITIONS                                         HEAD: OB1.3 ( -- ) T: ." LIFEFORM" T;
5 1500 TRANS-ALLOT NEWT-DP
6
7 CASE (.VESSEL)
8     22 IS OB1.3          \ Minstrel
9     20 IS .UKN           \ Mysterion
10    OTHERS OB1.1         \ Vessels, Probes
11
12 HEAD: .VESSELS ( ( object -- object ) )
13 T: @INST-SPECIES (.VESSEL) T;
14
15

```

1

4

```

0 ( Science Officer's Analysis      AWK 10/21/85 ) ( Science Officer's Analysis .OBJECT      AWK 10/22/85 )
1
2 ASCII . C: XTRAIL
3
4 HEAD: -XTRAILING ( addr cnt b -- addr' cnt' )
5 T: ' XTRAIL ! ' XTRAIL CFA ' -TRAILING 14 + !
6 -TRAILING
7 ' BL CFA ' -TRAILING 14 + ! T;
8
9
10 CASE (.OBJECT) ( inst-class -- ) \ output Analysis Line 1
11     25 IS .VESSELS          \ vessels, probes, lifeforms
12     24 IS OB1.5             \ debris
13     32 IS OB1.6             \ planets
14     23 IS OB1.7             \ star
15    OTHERS .UKN              \ unknown
16
17 HEAD: .OBJECT ( f ( object -- object ) )
18 T: BLUE !COLOR IF ." ANALYSIS OF LAST SENSOR READING:"
19 CTCR ." OBJECT:" THEN WHITE !COLOR @INST-CLASS (.OBJECT) T;
20
21

```

2

5

```

0 ( Science Officer's Analysis fields      AWK 10/23/85 ) ( Science Officer's Analysis .SIZE ?.CERTAIN      AWK 10/17/85 )
1
2 20 39 2 IFIELD: %MASS          17 20 3 IFIELD: SCI-OFF          HEAD: .SIZE ( ( object -- object ) )
3 16 26 2 IFIELD: ^SCI
4
5 25 0 1 AFIELD: VES-PERSONALITY 25 24 1 AFIELD: VES-DEBRIS      T: CTCR
6 25 4 1 AFIELD: VES-CLASS       25 6 1 AFIELD: VES-ACCEL        VES-MASS @ *SHIP >C+S %MASS @ ICLOSE
7 25 7 2 AFIELD: VES-MASS
8 25 14 2 AFIELD: VES-SHIELDPTS  25 18 1 AFIELD: VES-LASER      SWAP 0 3 PICK U/MOD 0 .R ." ."
9
10 23 17 1 IFIELD: ORBIT-MASK      10 * OVER /MOD 0 .R 10 * OVER /MOD 0 .R 10 * SWAP / .
11 32 1 1 AFIELD: PLAN-SURFTYPE  32 16 1 AFIELD: GRAVITY          ." TIMES THE SIZE OF OUR SHIP." T;
12 32 21 2 AFIELD: ATMO.ACTIVITY 32 23 1 AFIELD: ATMO.DENSITY
13 23 11 2 IFIELD: FLARE-DATE
14
15 26 0 16 AFIELD: ELEM-NAME
16
17 HEAD: ?.CERTAIN ( -- f )
18 T: WHITE !COLOR *ASSIGN-CREW >C+S SCI-OFF 1.5@ >C+S
19 200 ^SCI C@ - 0 MAX 0 200 RRND > CDROP ICLOSE DUP 0=
20 IF ." NOT CERTAIN" THEN T;
21
22 HEAD: HEADER T: CTCR BLUE !COLOR T;
23

```

6

9

```

0 ( Science Officer's Analysis .TYPE          AWK 10/17/85 ) ( Science Officer's Analysis .ORBIT          AWK 10/22/85 )
1
2 HEAD: TY1 ( -- ) T: ." TRANSPORT" T;          HEAD: O# ( -- n )
3 HEAD: TY2 ( -- ) T: ." SCOUT" T;              T: (ORBIT) 1.5@ >C+S INST-QTY @ ICLOSE T;
4 HEAD: TY3 ( -- ) T: ." WARSHIP" T;
5
6
7 CASE (.TYPE)
8   1 IS TY1 2 IS TY2 3 IS TY3
9 OTHERS .UKN
10
11 HEAD: .TYPE ( ( object -- object ) )
12 T: HEADER ." TYPE: " ? .CERTAIN
13 IF VES-CLASS C@ (.TYPE) THEN T;
14
15

```

7

10

```

0 ( Science Officer's Analysis .SHIELDS .ACCEL  AWK 10/17/85 ) ( Science Officer's Analysis .SURF          AWK 10/17/85 )
1
2 HEAD: .NONE T: ." NONE" T;
3
4 HEAD: .SHIELDS ( ( object -- object ) )
5 T: HEADER ." SHIELDS: " ? .CERTAIN
6 IF VES-SHIELDPTS @ ?DUP          \ have shield points?
7   IF VES-PERSONALITY C@ 2 = NOT    \ not Gazurtoid?
8     IF ." CLASS " 200 / . ." EQUIVALENT" ELSE DROP .UKN THEN
9     ELSE .NONE ." APPARENT" THEN
10 THEN T;
11
12 HEAD: .ACCEL ( ( object -- object ) )
13 T: HEADER ." ACCELERATION: " ? .CERTAIN
14 IF VES-ACCEL C@ . ." G" THEN T;
15

```

8

11

```

0 ( Science Officer's Analysis .WEAP .objects  AWK 10/21/85 ) ( Science Officer's Analysis .GRAV .ATMO          AWK 10/17/85 )
1 HEAD: .WEAP ( ( object -- object ) ) =
2 T: HEADER ." WEAPON STATUS: " ? .CERTAIN
3 IF VES-LASER @ 0=
4   IF ." NOT" THEN ." ARMED"
5 THEN T;
6
7 HEAD: .DELEM ( n -- )
8 T: DUP VES-DEBRIS + C@
9 IF ?DUP IF VES-LASER + 2+ C@ ELSE 21 THEN RECORD# ! 26 FILE# !
10 ELEM-NAME 16 ASCII . -XTRAILING TYPE SET-CURRENT
11 CTR 13 SPACES THEN T;
12
13 HEAD: .CONSTIT ( ( object -- object ) )
14 T: HEADER ." CONSTITUENTS: " ? .CERTAIN
15 IF 0 .DELEM 1 .DELEM 2 .DELEM 3 .DELEM THEN T;

```


12

```

0 ( Science Officer's Analysis .WEATH
1
2 HEAD: WTH1 ( -- ) T: ." CALM" T;
3 HEAD: WTH2 ( -- ) T: ." MODERATE" T;
4 HEAD: WTH3 ( -- ) T: ." VIOLENT" T;
5 HEAD: WTH4 ( -- ) T: ." VERY " WTH4 T;
6
7 CASE (.WEATH)
8 1 IS WTH1 2 IS WTH2 3 IS WTH3 4 IS WTH4
9 OTHERS .NONE
10
11 HEAD: .WEATH ( ( object -- object ) )
12 T: HEADER ." GLOBAL WEATHER: " ? .CERTAIN
13 IF ATMO.ACTIVITY C@ (.WEATH) THEN T;
14
15

```

15

```

AWK 10/17/85 ) ( Science Officer's Analysis AWK 10/17/85 )
HEAD: .MINSTREL ( -- ) T: .SIZE .ACCEL T;
HEAD: .DEBRIS ( -- ) T: .CONSTIT T;
HEAD: .V/P ( -- ) T: .TYPE .SIZE .SHIELDS .ACCEL .WEAP T;

CASE (.V/P-OBJ)
22 IS .MINSTREL 24 IS .DEBRIS
OTHERS .V/P

HEAD: .V/P-OBJ ( -- ) T: @INST-SPECIES (.V/P-OBJ) T;
HEAD: .P-OBJ ( -- ) T: .ORBIT .SURF .ATMO .WEATH T;
HEAD: .S-OBJ ( -- ) T: .SPECTRAL .ECOS .STABLE T;

```

13

```

0 ( Science Officer's Analysis .SPEC .ECOS
1 HEAD: .SPECTRAL ( ( object -- object ) )
2 T: HEADER ." SPECTRAL CLASS: "
3 WHITE !COLOR @INST-SPECIES EMIT T;
4
5 V: SPEC-TABLE -2 DP +!
6 ASCII M C, ASCII K C, ASCII G C, ASCII F C,
7 ASCII A C, ASCII B C, ASCII O C,
8
9 HEAD: SPEC>ECOS ( n -- n' )
10 T: >R 2 7 0 DO 1+ SPEC-TABLE I + C@ J =
11 IF LEAVE THEN LOOP R> DROP T;
12
13 HEAD: .ECOS ( ( object -- object ) )
14 T: HEADER ." ECOSPHERE: " @INST-SPECIES SPEC>ECOS DUP
15 WHITE !COLOR 2- . ." - " 8 MIN . T;

```

16

```

AWK 10/30/85 ) ( Science Officer's Analysis AWK 10/17/85 )
CASE (.ANALYSIS)
32 IS .P-OBJ 23 IS .S-OBJ 25 IS .V/P-OBJ
OTHERS UNRAVEL

: (/ANALYSIS) ( f -- )
CTINIT CTERASE SENSE-ADDR 1.5@ 2DUP OR
IF >C+S .OBJECT @INST-CLASS (.ANALYSIS) ICLOSE
TIME D@ 4000. D+
BEGIN TIME D@ 20VER D> 'KEY OR UNTIL 2DROP
ELSE 2DROP DROP ." I NEED A CURRENT SENSOR READING."
THEN 0. SENSE-ADDR 1.5! ;

```

14

```

0 ( Science Officer's Analysis .STABLE
1
2 HEAD: .STABLE ( -- )
3 T: HEADER ." CONDITION: " ? .CERTAIN
4 IF FLARE-DATE @ STARDATE @ - >R I 0 2001 WITHIN NOT
5 IF ." STABLE " I 0<
6 IF ." (POST-FLARE)" THEN
7 ELSE I 1000 >
8 IF ." SLIGHTLY UNSTABLE"
9 ELSE ." UNSTABLE - ESTIMATED TIME TO FLARE:"
10 CTCR I ." ARTH DAYS." THEN
11 THEN R> DROP
12 THEN T;
13
14
15

```

17

```

AWK 10/17/85 ) ( -----Analysis Overlay Suffix-----9/10/85)
DISPOSE
CLOSE-OVERLAY
107 OVERLAY ANALYZE-OV
ANALYZE-OV
FORTH DEFINITIONS

: ov/ANALYSIS ( f -- ) ANALYZE-OV ANALYZE-VOC (/ANALYSIS) ;
' ov/ANALYSIS ' 'ANSYS ! \ set forward ref in hyper-ov for
\ system entry

OV-CANCEL

```