APPENDIX 24
SIGNAL SORTER FLOW CHARTS
FINAL SOFTWARE REPORT
DATA ITEM NO. A005

INTEGRATED ELECTRONIC WARFARE SYSTEM
ADVANCED DEVELOPMENT MODEL (ADM)

PREPARED FOR:
NAVAL AIR DEVELOPMENT CENTER
WARMINSTER, PENNSYLVANIA

CONTRACT N6269-75-C-0070

1 OCTOBER 1977

UNCLASSIFIED
APPENDIX 24

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INTEGRATED ELECTRONIC WARFARE SYSTEM (IEWS)
ADVANCED DEVELOPMENT MODEL (ADM)

Contract No. N62269-75-C-0070

Prepared for:
Naval Air Development Center
Warminster, Pennsylvania

Prepared by:
RAYTHEON COMPANY
Electromagnetic Systems Division
6380 Hollister Avenue
Goleta, California 93017

1 OCTOBER 1977
**TYPE OF SPEC**

Computer Program Design Specification

**TITLE OF SPEC**

IEWS Signal Sorter Flow Charts

<table>
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<th>FUNCTION</th>
<th>APPROVED</th>
<th>DATE</th>
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<tr>
<td>WRITER</td>
<td>T. Chernesky</td>
<td></td>
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**REVIZIONS**

<table>
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<tr>
<th>CHK</th>
<th>DESCRIPTION</th>
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**REVISION**

<table>
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<th>SHEET NO.</th>
<th>REV STATUS OF SHEETS</th>
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10-1348 (11/68) VELLUM PRINTED IN U.S.A. 10-1348 (11/68) FILM
SC issues
"HOLD START
SUPERVISOR"

SUPERVISOR
INITIALIZATION
(Slow)

SC
INTERRUPT
HANDLER

RTC
INTERRUPT
HANDLER

NEGU
INTERRUPT
HANDLER

OTHER
INTERRUPT
HANDLERS

START
NEW
TRACK

UPDATE
EMITTER

MESSAGE
POLLING

MESSAGE
HANDLER

INITIATE
UPDATE

START
UPDATE

TIME-OUT
CHECK

task
priority
level
(HI) 3

(low) 2

1

INTERRUPT PRIORITIES

highest = 8. BUS HUNG
7. WATCHDOG TIMER EXPIRED
6. PANIC BUTTON
5. SC MESSAGE

lowest = 1. IB < 1/4 FULL
2. IB > 3/4 FULL
3. REAL TIME CLOCK
4. NEGU MESSAGE
CALL SEQ -

LDSX (ADDR OF TCB)
LDSB (TASK PRIORITY LEVEL)
JSUB (=SCHED)
   NORMAL RETURN
FLOW CHART

A

DISABLE INTERRUPTS

GET INDEX TO HI-PRIORITY TASK QUEUE

DISP

GET SOQ PTR

= φ?

N

Y

INCORRECT INDEX TO NEXT TASK QUEUE

N

END OF TASK TABLE

Y

ENABLE INTERRUPTS

DISP

GET FWD PTR

= φ?

N

Y

PUT IN EQQ PTR

PUT IN SOQ PTR

DISABLE INTERRUPTS

A

JUMP TO TASK

CALL SEQ -

JUMP (=DISP)

X-REG CONTAINS ADIR OF TASK CONTROL BLOCK

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DISPATCHER
4956 T. ERNIESKY 9 MEX 76
FLOW CHART

SINUP

SET INDEX

GET TAGS FROM EMITTER TABLE

VALID?

IN UPDATE?

DO NOT UPDATE?

SKIP MIDREN?

SUBTRACT LAST PDU TIME FROM SYSTEM TIME

DIFF EMITTER PRIORITY?

CALL SCHED UPDATE

INCREMENT INDEX

END OF TABLE?

Y

N

EMITTER UPDATE INTERVALS

1 SEC
- NEW EMITTER
- HI RATE
- THREAT

2 SEC
- HI RATE

4 SEC
- LD RATE

SEND ERROR ALERT NO. 7 TO SC.

A

B

Y

N

DISP
FLOW CHART

SCUP

SAVE REGISTERS

CLEAR WORD 7 OF EMIB ENTRY

GET FLAG WORD

SET IN-UPDATE FLAG

SCUP78

NEW EMITTERS

GET PRIORITY (=2,4,0,6)

SWAP ADDR OF WORD 7 WITH PRIORITY EQQ

SWAP ADDR OF WORD 7 WITH PRIORITY EQQ

SCUP18

EQQ = 0?

SET PREV FWD PTR

PUT ADDR IN SOQ

SCUP28

UPDATE COUNT < 5?

SCUP8

UPDATE

SCUP38

RESTORE REGISTERS

RETURN

REMARKS

'EMIB' MEANS 'SUPV EMITTER TABLE'

CALL SEQ -

LDSB (EMIB ENTRY ADDR)

JSUB (= SCUP)

NORMAL RETURN

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SCHEDULE UPDATE SUBROUTINE

SHR a8 1

49956 - T. CHERNESKY 12 APR 76
UPDATE

SAVE TRACK NO.

RETURN TCB TO FREE CORE

READ TRACK FILE FROM TDM

CALCULATE EMIT ENTRY ADDRESS

GET FLAG WORD

NEW EMITTERS?

Y → 3A

N

18

1A

GET SGD PTR

SUM = 0

SUPD1Φ

ADD AZIMUTH

GET PDW FWD PTR

N = Φ2?

Y

18

SUPD3Φ

SET TRZ = Φ2

STORE AZIMUTH

SET IB AZIMUTH

UPDATE IB AZIMUTH

2A

ARAZI MUTH

CALCULATION
**Case 1:**
- Guess = Max - N
- Actual = M
- N = 0, 2, 3

**Guess - Actual** = large pos. no., i.e., Max - M > \(2^{16}\)
Therefore, need N + M < 4, else possible missed pulse.
If A > GC pos. and non-zero, then Comp((guess - act) - Max) = N + M

**Case 2:**
- Guess = N
- Actual = Max - N
- N = 0, 2, 3

**Guess - Actual** = large neg. no., i.e., Max - N
Therefore, N + M < 4, else error.
If a neg. and N ≠ -1, then
Max - Act + Guess = Max -(Max - N) + M = N + M
FLOW CHART

DEFINE

9A

LONG

PULSE

EMITTER?

Y

N

COMPUTE

AND

NO.

OF

PDWS

PER

PULSE

GET

PRIA

AND

PRIB

CALC'D

BY

NEW

SEND

LONG

PULSE

PACK

MSG

TO

SC

SEND

SOQ

TO

NEW

EMITTER

PDWS

QUEUE

EMPTY?

Y

N

FIND

END

OF

NEW

EMITTER

PDWS

RETURN

NEW

EMITTER

PDWS

TO

FREE

CORE

CLEAR

EMITTER

FLAGS

INCREMENT

UPDATE

COUNT

SCHEDULE

START

UPDATE

EXIT

TO

DISPATCHER

REMARKS

WRITE TRACK

FILE

AND

OUTPUT

MESSAGES

TO

SC

FLAGS CLEARED:

1. IN UPDATE

2. WAITING FOR

PDWS

3. TIME OUT

4. NEW EMITTER

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UPDATE TASK
JEWS SORTER SVC

49956
C. CHRONESKY 3 JUN 76

NUMBER

JD SHEET 9 OF 10
FLOW CHART

SRTC RUPRT
SAVE REGISTERS

I6 SUP IDLE FLAP SET?
Y

INCREMENT SYSTEM TIME

NEG?
Y
SET SYSTEM TIME = 0

N
SRTC 10
SET NEMS PURGE FLAG

SET BLOCK FROM FREE CORE

SCHEDULED TIME-OUT CK TASK

INCREMENT RTC INTERRUPT COUNT

SRTC 96
ENABLE IB 23/4 FULL INTERRUPT VIA TC

N
SCHEDULE INITIATE UPDATE

SET RTC INTERRUPT COUNT = -4

= 0?
Y
SRTC 95
RESTORE REGISTERS

ENABLE INTERRUPTS

INTERUPT RETURN

REMARKS
Interrupt RTC occurs every 50 msec

( )
FLOW CHART

SHUNGRUP
SAVE REGS IN IK RAM
SEND BUS HUNG ERROR MSG TO SC
HALT

SUDDRUPT
SAVE REGS IN IK RAM
COMPUTE CHECKSUM OF SUN CODE RAM
INITIALIZE VALUE?
Y
SEND ERROR ALERT MSG TO SC
SEND WD TIMER EXP MSG TO SC
HALT

SPANRUPT
SAVE REGS IN IK RAM
RESET WATCHDOG TIMER
RESTORE REGISTERS
ENABLE 10 INTERRUPTS
INTERRUPT RETURN

REMARKS
REGS, SAVED ARE A, E, B, X, S, P
IB34Rupt

SAVE REGISTERS

SEND IB > \(\frac{3}{4}\) FULL MSG TO SC

ENABLE IB \(\geq \frac{3}{4}\) FULL Rupt via TC

DISABLE IB \(\geq \frac{3}{4}\) FULL Rupt via TC

ENABLE 10 INTERRUPTS

RESTORE REGISTERS

INTERRUPT RETURN

IB4Rupt

SAVE REGISTERS

DISABLE IB \(\leq \frac{3}{4}\) FULL Rupt via TC

SEND IB \(\leq \frac{3}{4}\) FULL MSG TO SC

RESTORE REGISTERS

INTERRUPT RETURN

IB \(\geq \frac{3}{4}\) FULL INTERRUPT IS ENABLED VIA TO EVERY RTC INTERRUPT
CALL SEQ

LRS A (EMITTER NO.)

J$UB (= SEMTBC)

STSA (EMTB ENTRY ADDR.)
FLOW CHART

SNESRUPT

SAVE
REGISTERS

GET
HESU
MSG
BUFF1
COMMAND
CODE

NEG?
OR B

SNESR5

GET
HESU
MSG
BUFF2
COMMAND
CODE

NEG?
N

SNESR1

ERROR ALERT

NEW Emitter
Alert

=3?

=1?

N

Y

N

SNESR1

SET SIGN
BIT OF
HESU
COMMAND

NEG?

Y

30-SC
HESU
BUFF BUSY?

N

GET HESU
ERROR CODE
FROM MSG

ADD

80H

SEND ERROR
ALERT NO.
50H+N TO SC

SEND ERROR
ALERT NO.
4 TO SC

SNESR3

1A

CLEAR HESU
MSG COMMAND
WORD

1B

SNESR95

RESTORE
REGISTERS

REMARKS

NEGATIVE COMMAND CODE MEANS NEW Emitter ALERT MSG HAS BEEN PUT IN THIS BUFFER BY HESU AND IS BEING PROCESSED. (I.E., START NEW TRACK TASK HAS BEEN SCHEDULED.)

ERROR ALERT NO. 4 MEANS "INVALID MSG RECD FROM HESU"

INTERRUPT RETURN
FLOW CHART

LA
SSTNT
RETURN
TCB TO
FREE CORE

SSTNT10
MSG BUFF 1
MSG BUFF 2
END CORE 1, 2
N
N
EXIT TO
DISPATCHER

SSTNT30
SAVE
BUFFER
ADDR.

SSTNT35
REQUEST
NON-VALID
TRACK
FROM TC

SSTNT15
TDM
FULL?
Y
N

SSTNT16
COPY
TRACK
DATA TO
MSG BUFF

SEND TDM
FILES FULL
MSG TO SC

SSTNT50
COPY
TRACK
DATA TO
TC DATA
BUFFER

WRITE TRACK
FILE INTO
TDA

SSTNT17
RETURN
HIGH BLOCKS
TO CORE
(IF ANY)

PRI_AV <= HOURS
THROTTLE
OF NEW EMITTER
IS REQUIRED.

'REF' MEANS
REDUCTION
FACTOR

SSTNT60
PRI_AV =
(PRIM + PRIB) / 2

PRI < HOURS?
Y
N

SSTNT40
COMPUTE RF
RF = 1024
PRI_AV

SAVE RF
IN TC DATA
BUFFER

SSTNT65
INITIALIZE
ENTRY

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START NEW TRACK TASK

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T. CHEKINESKY 8. JUN 76

NUMBER

PAGE 1 OF 2
FLOW CHART

SAHCMH1

RETRAN
TAB TO
FREE CORE

SET MSG
COMMAND
CODE

LEGAL
CORE?

Y

SEND ERROR
ALERT 4H.5
TO SC

N

SSCMBH6

CLEAR SC
MSG BUFFER
FLAG

SSCMBH6

DISP

RIGHT BIT
USUALLY CONTAINS
ATTER TRACK
FILE NO.

COMPUTE
TABLE
INDEX

GET R. BITE
OF MSG
COMMAND

JUMP TO A LO-PRI
MSG PROCESSING ROUTINE

CAM. FILE DUMP
OP-CODE = $5

AOA READOUT REQUEST
OP-CODE = $6

SSCM$5

SEND CAM
FILE DUMP
MSG TO AESU

SSCM$6

SEND AOA
READOUT REQUEST MSG
TO NESU

REMARKS

0-33
FILE DUMP REQUEST
OP CODE = 07
SSCM#7

N = φ

SSCM#7a
SEND PTDW FOR TRK N TO SC

N = N + 1

Y

N < 128?

N

SUBROUTINE TO SEND 1
PTDW TO SC.
SSCMPTDW

SAVE REGISTERS
SSCMPT#6

H SC LOOP READ BUFF BUS?

SSCMPT#6

READ TRK CONTENTS INTO TC
DATA BUFF

MOVE PTDW FROM MSG
BUFF TO IB
DATA BUFF

ISSUE IB COMMAND TO PROCESS
SPDW

IM

SYNTHETIC PDW
OP CODE = 09
SSCM#9

MOVE TC DATA BUFF
TO MSG BUFF

SEND PTDW
MSG TO SC

RESTORE
REGISTERS

RETURN
FLOW CHART

NE3 U TRACK
THRESHOLD MODIFY
OP-CODE = ΦA
SSCM3A

3B
GET TO-NE3U
MSG NO.
(= 3)
SSCM3AA
TO-NE3U Y
BUFF BUSY?
N
PUT NEW
VALUE IN
MSG BUFF

SEND MSG
to NE3U
1A

QUALITY BIT MOD.
OF TRACK N
OP-CODE = ΦB
SSCM3B

READ TRK N
CONTENTS INTO TC
DATA BUFF

GET NEW
QUALITY BIT FROM
SC MSG

PUT INTO
TC DATA BUFFER
3A

WRITE TC
DATA BUFF INTO TRK
1A

TRACK PRIORITY MOD.
OP-CODE = ΦC
SSCM3C

CALCULATE
EMITTER
TABLE ADDR

GET OLD
FLAGS/PRIOR
FROM EMIT
ENTRY

GET DATA
WORD FROM MSG

SSCM3CA

BIT 14 SET?
N
Y
SET PRIORITY TO HI-RATE
THREAT

SET PRIORITY TO HI-DATA
RATE

SSCM3CB

BIT 13 SET?
N
Y
CLEAR DON'T
UPDATE TIME OUT
FLAG BITS

SAVE NEW
FLAGS/PRIOR.
IN EMIT
ENTRY

GET NEW
PURGE TIME
FROM SC
MSG

SET PURGE TIME
TO NEW
VALUE
1A

SSCM3DC

BIT 12 SET?
N
Y

REMARKS

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SC MESSAGE HANDLING

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R. C. MILLER 12/84
NUMBER SHEET 3 OF 5
DELEATE TRACK FILE
OP-CODE = 11
SSCMII

CLEAR VALD
BIT IN
TO DATA BUFF

WRITE TC
DATA BUFF
INTO TRK
FILE N

CALCULATE
EMTB ENTRY
ADDR

GET EMTB
ENTRY TAG
WORD

THROTTLED N
FILE?
Y

GET THROTTL
FILE NO.

CLEAR VALD BIT
IN CAM FILE

INIT THROTTL
ENTRY TABLE

SSCMII\n
CLEAR ALL
FILE N
EMTB ENTRY

RETURN, UPDATE PDW
BLOCKS (if any)

RETURN, LSE,
PDW BLOCKS
(if any)

FREQUENCY MODIFICATION
OP-CODE = 12
SSCMII\n
GET NEW
FREQUENCY

READ TRKH
INTO TC
DATA BUFF

STORE NEW
FREQ. IN
TC DATA BUFF

WRITE TC
DATA BUFF
INTO TRK
FILE N

CALCULATE
EMTB ENTRY
ADDR

GET EMTB
ENTRY FLAGS

THROTTLED N
FILE?
N

GET THROTTL
FILE NO.
FROM EMTB

WRITE FREQ.
INTO 1B
CAM FILE

CLEAN UPDTE
EOQ AND NEW
EMITTER PDW
POINTER

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750-507000-01

SC MESSAGE HANDLING

49956
T. Chernovsky 12 Apr 74

NUMBER
37
SHEET 5 OF 7
MODIFY SORTER MEMORY  
OP-CODE = 1A  
SSCM1A

GET ADDR  
OF WORD TO  
BE MODIFIED

REPLACE  
CONTENTS  
OF WORD

1A
DO CAM SEARCH ON VALID, AE

PICK 1ST EMIT. WITH CW MATCH

FIND MIN., MAX. FREQ FOR ALL EMIT IN AZ CELL WITH PN MATCH

GET LIST OF EMIT ENTRIES OF ABOVE

SUB. MIN. FROM MAX,

DIFF > 15 MHz

Y

ZERO AZ CELL COUNT

N

MERGE ALL CAM & EMIT ENTRIES INTO SINGLE EMIT.

SET AGILE FLAG

GENTZK

RZTO
GENTRK

CALC TAZ
SET TQA2 = 2

LP
Y
NOTIFY
N

CW
Y
SET TPDW = E
TQPW = 2
N

CALC TPW TQPW

GENERATE LIST OF PDW FREQ.

AGILE FLAG SET
Y
N
B.1

FORM GRPS OF PDW's WITH FREQ SPREAD < 15MHz
SAVE AVG FREQ EACH GROUP

NGRPS = 2
N

OUTPUT 2TRK FILES EACH W/AUC FREQ FOR EACH GROUP
TPQF = 2
TPQRI = F
TPRI = Φ

DEC AOA CNT
SET NE BIT IN EMFL

START
B
160
NG ICP = 1
Y
N
170
SET TA BIT

CALC MEAN & VAR. FOR FREQU.

GET TPOFF FROM PROPER QUAL. TABLE

CW EMIT
Y
N
SET TPRI = 4
TQPI = F
TCW = 1

CALC TPRI TQPI

OUTPUT TRICK FILE

DEC AOA COUNT

SET NEO BIT IN EMFL

START
FLOW CHART

A

SET SORT BUFFER POINT

SET BUFFER COUNT = 0

GET EMFL ENTRY INDEX WORD

EML INDEX = (EML INDEX + 1) MOD BUFFER

INCREMENT BUFFER COUNT

GET NEXT MATCH

MATCH

N

B

END TRACK BIT SET

LINK PDW TO EMFL

UPDATE EMFL TOA

C

CLEAR EMFL PURGE BIT

GET PDW AZIMUTH

INCREMENT APPROX AZA CELL COUNT

IF 3/THRESHOLD

1A

N

V

3A

NMAGILE

FREQUENCY AGILE EMITTER CHECK

A PDW MATCH MUST INCLUDE AZIMUTH, FREQUENCY AND CONTINUOUS WAVE

THRESHOLD OF PDW'S REQUIRED TO GENERATE NEW TRACK

N

6A

NMATCH

N

V

7A

NMULTMATCH

EMFL TOA AND PURGE BIT ARE USED TO PURGE ARRIVE AND "OLY" ENTRIES

IGNORE PDW MATCHING FILE RECEIVED SENT TO SUPERVISOR

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JENS SORTER - NESU

49956

47

NUMBER MAIN SHEET 2 OF 19
WHEN THE NESU GETS AHEAD OF PDW INPUT AND THE SDVN HAS SET THE NESU PURGE FLAG, EMFL ENTRIES WHO HAVE NOT RECEIVED A PDW SINCE THE LAST PURGE CYCLE ARE RELICED OF THEIR OLDEST PDW. OTHER VALID ENTRIES ARE MARKED FOR THE NEXT CYCLE.
SET INDEX TO START OF EMFL

GET FLAGS

VALID

Y

NE

Y

N

RETURN BLOCKS

CLEAR FLAGS

INVALIDATE CAM FILE

INCREMENT INDEX

END OF EMFL

Y

CLEAR EMFL

DONE
RETURN TO NESU MAIN

TEMPORARY PURGE MOD, (SI's PURGE)
FLOW CHART

A

NMNOMATCH

(C)=PDW PTR

SEARCH ON VALID = 0

MATCH

Y

(B)= EMFL INDEX

SET PTR TO PROPER EMFL ENTRY

GET PTR TO PROPER EMFL ENTRY

SET BIT IN EMFL INDEX

SET PREV UP BIT IN EMFL INDEX

SET EMFL SOB, EQQ

SET BIT IN CAM

SET PDW COUNT = 1

EMFL CAM

SET R23420

EMFL CAM

SET TOA IN EMFL

SET AFHRO CW BIT IN EMFL

1A

NMNOM010

NMNOM050

NMNOM060

NMNOM30

NMNOM32

MATCH

Y

NMNOM040

SAVE TOA AND INDEX

NMNOM020

SET NEXT MATCH

MATCH

N

RETURN BLOCK

Y

GET TOA

SUBTRACT SAVED TOA

MSB < Y

NEG

MSB < 4

GET ABSOLUTE VALUE

RETURN BLOCK

NO MATCH = EMFL FULL

IE, NEW EMITTER OVERFLOW

RMARKS

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IFILS SORTER - NESU

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SHL 6 OF 19
FLOW CHART

A

NGENT15

DIVIDE
SUM/COUNT

Y

COUNT < THRESHOLD

N

NGENT15

SAVE AVG FREQ COUNT IN GROUP

INC GROUP COUNT

NGENT15

NEXT FREQ BECOMES FIRST

NGENT15

BUF EMPTY

Y

NGENT16

GROUP COUNT = 2

N

NGENT16

Y

NGENT17

TFR + 1ST AVG FREQ

TQP1 + Φ

TQPI1 + Φ

WRITEOUT SEND TRACK FILE TO BUF

GET ADDRESS OF PROPER AGILE FILE TABLE

TFR + 2ND AVG FREQ

WRITEOUT SEND TRACK FILE TO BUF

PAIRDIC LIST AOA FOR POINTS IN TRACK FILE

SET NEW Emitter BIT IN EMEL

1A

B

NGENT15

SET FILE FLAG BIT IN TRACK FILE

C

NGENT15

SET PTR TO SORT BUFFER

NGENT19

SUM = 0

SUM = SUM + NEXT FREQ

INCR BUFFER PTR

NGENT19

Y

NGENT9

SUM = 0

DIVIDE SUM/COUNT

SET TQF + AVG FREQ (MEAN)

SET INDEX TO BUF START

SGT14

CALC (NEXT FREQ - MEAN)^2 / SUM

ADD TO SUM

BUF EMPTY

VARIANCE =

\[ \frac{\sum (\text{FREQ} - \text{MEAN})^2}{(n - 1)} \]

NOTE: NOT SAMPLE
VARIANCE

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RMT-600-140-0001

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**Flow Chart Process**

**Cases**

**Case 1:**
- **Guess = Max - N**
- **Actual = M**

**Guess - Actual** = Large Pos. No., i.e., Max-N-M > 16

Therefore, need N-M < 4, else possible missed pulse.

If a Reg Pos and Non-Zero, then Comp [Guess - Actual] - Max = N-M

**Case 2:**
- **Guess** = M
- **Actual** = Max - N

**Guess - Actual** = Large Neg. No., i.e., Max-N-M

Therefore, N-M < 4, else error.

If a Neg. and N ≠ -1, then

Max - Actual * Guess = Max - (Max-N) * M = N-M

**Remarks**

**PRI Chain Calculation - TOA Wraparound Problem**

**MAXTOA** = Constant

= 1000000

**P1 is first avg PRI**

**P2 is 2nd avg PRI**

**PRI chasing is an attempt to search for dual stagger PRI.**
NSORT

SAVE SIZE

SAVE CNT-1 AS PASS COUNT ON STACK

SAVE CNT-1 AS PER PASS COUNT(NDSORT 1)

SET PTR1 = PTR TO 1ST ENTRY

SET PTR2 = PTR TO 2ND ENTRY

EXEC INDEXED COMARE OF PTR1-ENTRY & PTR2-ENTRY

1ST ≤ 2ND

Y

SWAP ENTRIES

N

B

NBSORT 1 contains (E)-word entries

(E) is count (GT 1)

(A) is word to sort on (0-3)

(B) is entry size (max = 4)

Y

DEC. PASS COUNT(NDSORT 1)

= 0

N

= 0

Y

B ← PTR TO NBSORT 1

E ← Ø

RETURN

GET PASS COUNT

SAVE AS PER PASS COUNT(NDSORT 1)

SET PTR1 TO NEXT ENTRY

SET PTR2 TO NEXT ENTRY

A

B

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Flow Chart

NTRKOUT

WAIT FOR FREE HI MSG BUFF

STORE PDD PTR IN MSG BUFF

SET HI AND BIT IN TRACK FILE

MOVE TRACK FILE TO MSG BUFF

SEND NEW EMMITTER ALERT SIGNAL

RETURN

NTOA DEC

GET PTR TO 1ST PDD

IS IT

RETURN

AZ DEC

GET PDD AZIMUTH

GET PDEC AOA COUNT

ϕ

ϕ

DECR AOA COUNT

RETURN