ATF

```
100|( BEGINING OF ATTACK FIGHTER GAME )
101|( ATTACK FIGHTER PATTERNS - LEADER PATTERN )
102|( MISSIONS- LASAR LZ  ) HEX
150|( ATF VARIABLES )
151|( PHASOR INTERCEPT CHECK ROUTINE )
152|( TIME BASED VECTOR UPDATE - WITH LIMIT CHECKING )
153|( FORMATION LEADERS ALMOST NULL INTERRUPT ROUTINE )
154|( ANIMATION TO ACTIVATE FORMATIONS )
155|( ROUTINE TO ACTIVATE THE FORMATIONS )
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166|( SCAN LOOP AND STARTUP )
180|( UPSIDE DOWN RELABS ROUTINES FOR COCKTAIL MODE USE )
181|( TEST GOODIES )
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 +--------Block    100--------
 0|( BEGINING OF ATTACK FIGHTER GAME )
 1|CC? NOT IFTRUE DATA GSAB 0 B, 0 , 0 , IFEND
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 +--------Block    101--------
 0|( ATTACK FIGHTER PATTERNS - LEADER PATTERN )
 1|DATA LEADER 4 B, 11 B, QUAD
 2|0000 B, 0000 B, 3000 B, 0000 B,
 3|0003 B, 3333 B, 3000 B, 0000 B,
 4|0000 B, 0220 B, 2000 B, 0000 B,
 5|0000 B, 0220 B, 0000 B, 0000 B,
 6|0000 B, 2220 B, 0220 B, 0000 B,
 7|1111 B, 2222 B, 2220 B, 0000 B,
 8|0000 B, 2220 B, 0220 B, 0000 B,
 9|0000 B, 0220 B, 0000 B, 0000 B,
10|0000 B, 0220 B, 2000 B, 0000 B,
11|0003 B, 3333 B, 3000 B, 0000 B,
12|0000 B, 0000 B, 3000 B, 0000 B,
13|DECIMAL -->
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 +--------Block    102--------
 0|( MISSIONS- LASAR LZ  ) HEX
 1|DATA LZSCORE ASM
 2| 28 MASTER #G2 #D3 #A4 TONES CC ABVOLS 1C MCVOLS
 3| 0 1 1 20 MOVENOISE 1 2 0 MOVESOUND 1 COUNTPANS PLAY
 4| 20 1 -1 0 MOVENOISE 1 -1 28 8 RAMBLE 1 COUNTPANS PLAY
 5| KBSCORE LDPCC ( jump to background sound )
 6|DECIMAL ;S
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  +--------Block    150--------
 0|( ATF VARIABLES )
 1|0 V= TBV1 0 V= TBV2 5 ARRAY F1 5 ARRAY F2
 2|0 V= FSV1 0 V= FSV2
 3|DECIMAL -->
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  +--------Block    151--------
 0|( PHASOR INTERCEPT CHECK ROUTINE )
 1|DECIMAL F= INTLOG
 2|SUBR PINTER <ASSEMBLE
 3|PINTERFLAG LDA, A ANA, RNZ,
 4|1 C MVI, CHECKALL CALL, RZ,
 5|PQSRH PQS Y RESX, PQSDW PQS Y SETX,
 6|VYL Y L LDX, VYH Y H LDX, PINTERY SHLD,
 7|VXL Y L LDX, VXH Y H LDX, PINTERX SHLD,
 8|VRACK Y A LDX, PINTERN STA,
 9|1 A MVI,
10|PINTERFLAG STA,
11|( INVADERSLEFT LDA, A DCR, INVADERSLEFT STA, )
12|verase CALL, PQSRH PQS X RESX,
13|RET, ASSEMBLE> -->
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  +--------Block    152--------
 0|( TIME BASED VECTOR UPDATE - WITH LIMIT CHECKING )
 1|DECIMAL F= LCD1 F= LCD2
 2|SUBR VUPDLC <ASSEMBLE
 3|C A MOV, A ANA, RZ, ( DONT IF ZERO VECTORING WANTED )
 4|VXL X L LDX, VXH X H LDX, VDXL X E LDX, VDXH X D LDX, C B MOV,
 5|LABEL LCD1 D DAD, LCD1 DJNZ, H A MOV, VDDXL X CMPX, CY, IF,
 6|VDDXL X H LDX, 0 L MVI, L VDXL X STX, L VDXH X STX, ELSE,
 7|VDDXH X CMPX, CY~, IF, VDDXH X H LDX, 0 L MVI, L VDXL X STX,
 8|L VDXH X STX, THEN, THEN, L VXL X STX, H VXH X STX,
 9|VYL X L LDX, VYH X H LDX, VDYL X E LDX, VDYH X D LDX, C B MOV,
10|LABEL LCD2 D DAD, LCD2 DJNZ, H A MOV, VDDYL X CMPX, CY, IF,
11|VDDYL X H LDX, 0 L MVI, L VDYL X STX, L VDYH X STX, ELSE,
12|VDDYH X CMPX, CY~, IF, VDDYH X H LDX, 0 L MVI, L VDYL X STX,
13|L VDYH X STX, THEN, THEN, L VYL X STX, H VYH X STX,
14|40 VXZW X MVIX, RET, ASSEMBLE>
15|DECIMAL -->
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 +--------Block    153--------
 0|( FORMATION LEADERS ALMOST NULL INTERRUPT ROUTINE )
 1|SUBR FLEADER TBCALC CALL, VUPDLC CALL, aup CALL, KILLOFF JMP,
 2|DECIMAL -->
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 +--------Block    154--------
 0|( ANIMATION TO ACTIVATE FORMATIONS )
 1|HEX
 2|DATA TBVTL ASM FLEADER SETR NULPAT SETP 4010 0A00C SETDDC
 3|FOREVER 120 SWAIT EVERFOR
 4|DATA ATBV1 ASM 3800 SETXC 1000 SETYC TBVTL AJMP
 5|DATA ATBV2 ASM 3800 SETXC 4800 SETYC TBVTL AJMP
 6|DATA ALEADER ASM LEADER SETP FOREVER 120 SWAIT EVERFOR
 7|DECIMAL -->
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 +--------Block    155--------
 0|( ROUTINE TO ACTIVATE THE FORMATIONS )
 1|HEX : STARTFORMATIONS GETNODE TBV1 ! GETNODE TBV2 !
 2|5 0 DO GETNODE I F1 ! GETNODE I F2 ! LOOP
 3|ATBV1 0 0BA TBV1 @ XVSTART ATBV2 0 0BA TBV2 @ XVSTART
 4|TBV1 @ 400 0 AKAMI 03 1B2 0 F1 @ FSTART
 5|TBV2 @ 400 0 AKAMI 03 1B2 0 F2 @ FSTART
 6|TBV1 @ 400 1000 AKAMI 03 1B2 1 F1 @ FSTART
 7|TBV2 @ 400 1000 AKAMI 03 1B2 1 F2 @ FSTART
 8|TBV1 @ 400 2000 AKAMI 03 1B2 2 F1 @ FSTART
 9|TBV2 @ 400 2000 AKAMI 03 1B2 2 F2 @ FSTART
10|SKILLFACTOR BC IF TBV1 @ 800 1000 AKGORF 03 1B2 3 F1 @ FSTART
11|TBV2 @ 800 1000 AKGORF 03 1B2 3 F2 @ FSTART 0A ELSE 8 THEN
12|INVADERSLEFT ! TBV1 @ 0 1000 ALEADER 04 1B2 4 F1 @ FSTART
13|TBV2 @ 0 1000 ALEADER 04 1B2 4 F2 @ FSTART ;
14|DECIMAL -->
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 +--------Block    156--------
 0|( KAMIKAZE ATTACK COORDINATOR )
 1|HEX SUBR KAMIATC ATTACKTIMER LDA, A ANA, RNZ,
 2|LDAR, 7 ANI, 4 CPI, CY, IF, 0 F1 H LXI,
 3|ELSE, 0 F2 H LXI, 3 ANI, THEN, RLC, A E MOV, 0 D MVI,
 4|D DAD, M E MOV, H INX, M D MOV, D PUSH, X POPX, DI,
 5|PQSRH PQS X BITX, RZ, ASFLOK VAUXS X BITX, RZ,
 6|VYH X A LDX, 20 SUI, 90 CPI, RNC,
 7|LDAR, 1 ANI, 0=, IF, KAMIATL H LXI, ELSE, KAMIATR H LXI,
 8|THEN, ASFLOK VAUXS X RESX, CRASHA CALL, LDAR, 7F ANI,
 9|20 ADI, ATTACKTIMER STA, PLAYKBS JMP,
10|
11|CODE CKKAMI X PUSHX, Y PUSHX, B PUSH, KAMIATC CALL, EI,
12|B POP, Y POPX, X POPX, NEXT
13|DECIMAL -->
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 +--------Block    157--------
 0|( FORMATION MOVE ROUTINE - RANDOM MOVES FIGHTER FORMATIONS )
 1|HEX SUBR FMOVER ( IN IX=FORM VECT DE=Y BIAS )
 2|D PUSH, SKILLFACTOR LDA, A ANA, 0=, IF, 40 D LXI, D PUSH,
 3|30 D LXI, ELSE, 20 D LXI, D PUSH, 18 D LXI, THEN,
 4|rnd CALL, D POP, D DAD, H PUSH, ( TIME )
 5|2000 D LXI, rnd CALL, 2000 D LXI, D DAD, D POP, D PUSH, DI,
 6|VXL X C LDX, VXH X B LDX, CDELTA CALL, L VXL X STX,
 7|H VXH X STX, E VDXL X STX, D VDXH X STX,
 8|4000 D LXI, rnd CALL, D POP, B POP, D PUSH, B DAD,
 9|VYL X C LDX, VYH X B LDX, CDELTA CALL,
10|L VYL X STX, H VYH X STX, E VDYL X STX, D VDYH X STX, EI,
11|D POP, RET,
12|DECIMAL -->
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 +--------Block    158--------
 0|( INTERRUPT ROUTINE TO DRAW LASER BLAST )
 1|( VDDXL=STATE VAR, VDDXH=X COUNTER, VDDYHL=SCREEN ADDR )
 2|SUBR BUMPLAZ A INR, A VDDXL X STX, VXH X A LDX, A VDDXH X STX,
 3|VSAL X L LDX, VSAH X H LDX, L VDDYL X STX, H VDDYH X STX, RET,
 4|HEX F= DRL F= DRLC
 5|SUBR SLASER <ASSEMBLE PQTB X C LDX, 0 PQTB X MVIX,
 6|C A MOV, A ANA, KILLOFF JZ,
 7|VDDXL X A LDX, A ANA, 0=, IF, BUMPLAZ CALL, THEN,
 8|VDDXH X A LDX, A ANA, 0=, IF, VDDXL X A LDX, 2 CPI,
 9|0=, IF, PQSRH PQS X RESX, ELSE, BUMPLAZ CALL, THEN,
10|ELSE, C B MOV, C SUB, 0<, IF, C ADD, A B MOV, THEN,
11|VDDXH X A LDX, B SUB, A VDDXH X STX, 20 A MVI, MAGIC OUT,
12|VDDYL X L LDX, VDDYH X H LDX,
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 +--------Block    159--------
 0|( LASER DRAWER CONTINUED )
 1|COCKTAIL LDA, A ANA, 0=, IF,
 2|LABEL DRL H DCX, 55 M MVI, DRL DJNZ,
 3|ELSE,
 4|LABEL DRLC H INX, 55 M MVI, DRLC DJNZ,
 5|THEN,
 6|L VDDYL X STX, H VDDYH X STX,
 7|THEN, KILLOFF JMP, ASSEMBLE> DECIMAL -->
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 +--------Block    160--------
 0|( LASER ANIMATION AND VECTOR START ROUTINE )
 1|HEX
 2|DATA LASERA ASM SLASER SETR NULPAT SETP 4 SWAIT
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 4|SUBR LSHOT DI, VXL X L LDX, VXH X H LDX, H PUSH,
 5|VYL X L LDX, VYH X H LDX, 1500 D LXI, D DAD, H PUSH,
 6|LASERA H LXI, H PUSH,
 7|0 H LXI, H PUSH,
 8|0A2 H LXI, H PUSH,
 9|XYVSTART JMP,
10|DECIMAL -->
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 +--------Block    161--------
 0|( CHECK FORMATION STATE VARIABLE AND EITHER FIRE OR REVECTOR )
 1|SUBR ZAPFORM ( FREEZE VECTOR POINTED AT BY IX )
 2|A XRA, A VDXL X STX, A VDXH X STX, A VDYL X STX, A VDYH X STX,
 3|RET,
 4|
 5|SUBR FCHECK M A MOV, A ANA, 0=, IF,
 6|A INR, A M MOV, ( LASER SHOOTER ) DI,
 7|PQSRH PQS Y BITX, 0< >, IF, ZAPFORM CALL,
 8|VXH X A LDX, A INR, A E MOV, 0 D MVI, D PUSH, ( TIME STUFF )
 9|LSHOT CALL, LZSCORE H LXI, MB2 Y LXIX, pmusic CALL, D POP,
10|THEN, ELSE, A XRA, A M MOV, FMOVER CALL,
11|THEN, RET,
12|DECIMAL -->
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 +--------Block    162--------
 0|( FORMATION MOVE CHECK ROUTINE )
 1|F= NC1 F= NC2
 2|HEX CODE FMC <ASSEMBLE
 3|X PUSHX, Y PUSHX, B PUSH,
 4|TIMER1 LDA, A ANA, NC1 JRNZ, 4 F1 LIYD,
 5|TBV1 LIXD, 1000 D LXI, FSV1 H LXI, FCHECK CALL, TIMER1 SDED,
 6|LABEL NC1 TIMER3 LDA, A ANA, NC2 JRNZ, 4 F2 LIYD,
 7|TBV2 LIXD, 4800 D LXI, FSV2 H LXI, FCHECK CALL, TIMER3 SDED,
 8|LABEL NC2
 9|B POP, Y POPX, X POPX, NEXT ASSEMBLE>
10|DECIMAL -->
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 +--------Block    163--------
 0|( ANIMATION LIST FOR FIREBASE STUFF )
 1|SUBR ATFINTER CKATRS CALL, ( 0<>, IF, INVADERSLEFT LDA, A DCR,
 2|INVADERSLEFT STA, THEN, ) EXPLODEFB CALL,
 3|X PUSHX, TBV1 LIXD, ZAPFORM CALL,
 4|TBV2 LIXD, ZAPFORM CALL, X POPX, RET,
 5|HEX DATA ATFFBA ASM ATFINTER SETI 2005 B005 SETDDC PLAYERANIM
 6|AJMP DECIMAL -->
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 +--------Block    164--------
 0|( ATTACK FIGHTERS COLORS AND WAIT ROUTINE )
 1|HEX
 2|DATA ATFCOLORS 7 B, 7D B, 0B B, 5A B, 7 B, 7D B, 0B B, 5A B,
 3|
 4|F= NYD F= YWD F= SAL
 5|CODE SCANARRAY <ASSEMBLE EXX, H POP, X PUSHX, 5 B MVI,
 6|LABEL SAL M E MOV, H INX, M D MOV, H INX,
 7|D PUSH, X POPX, PQSRH  PQS X BITX,
 8|0<>, IF, ASFLOK VALMS X BITX, NYD JRZ, THEN,
 9|SAL DJNZ, 1 H LXI, YWD JMPR,
10|LABEL NYD 0 H LXI,
11|LABEL YWD X POPX, H PUSH, EXX, NEXT ASSEMBLE>
12|: ATFWAIT BEGIN BARK BMS 0 F1 SCANARRAY 0 F2 SCANARRAY AND END
13|SHUTUP ; DECIMAL -->
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 +--------Block    165--------
 0|( INITIALIZE ATTACK FIGHTERS GAME )
 1|HEX : INITATF 0 FLOOD INITMISSIONRAM
 2|DRAWMISSIONSCREEN
 3|100 5000 408 24 INKMSG COUNT SPOST
 4|0 PINTERFLAG ! PINTER PHASINTR ! ' ATFWAIT REINIT !
 5|1 FSV1 ! 1 FSV2 !
 6|ATFFBA FBANIM ! ACTFB
 7|GETNODE DUP PV1 ! 0 SWAP !
 8|38 ATTACKTIMER ! 10 TIMER1 ! 48 TIMER3 ! ;
 9|DECIMAL -->
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 +--------Block    166--------
 0|( SCAN LOOP AND STARTUP )
 1|: ATFSCAN FIRECHECK PHASORINTERCEPTCHECK CKKAMI FMC
 2|BMS PLAYERHITCHECK BARK ;
 3|HEX : ATF INITATF STARTFORMATIONS 5 ATFCOLORS FUC
 4|EMUSIC E2MUSIC
 5|BEGIN ATFSCAN ENDOFFRAME @ END
 6|5 FDB ;
 7|HEX A5 GSAB U! ' ATF GSAB 1+ U!
 8|: ATFGO INITATF STARTFORMATIONS
 9|1 ATFCOLORS FUC
10|800 0 DO CREDITS? CKKAMI FMC LOOP 1 FDB ;
11|' ATFGO GSAB 3 + U!
12|DECIMAL ;S
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 +--------Block    180--------
 0|( UPSIDE DOWN RELABS ROUTINES FOR COCKTAIL MODE USE )
 1|HEX
 2|SUBR cockrel norrel CALL, XCHG, 3FBF H LXI, A ANA,
 3|D DSBC, C A MOV, 0C0 XRI, A C MOV, RET,
 4|SUBR cockff ffnorrel CALL, XCHG, 3FBF H LXI, A ANA,
 5|D DSBC, C A MOV, 0C0 XRI, A C MOV, RET,
 6|DECIMAL -->
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24 GNAME

BMS