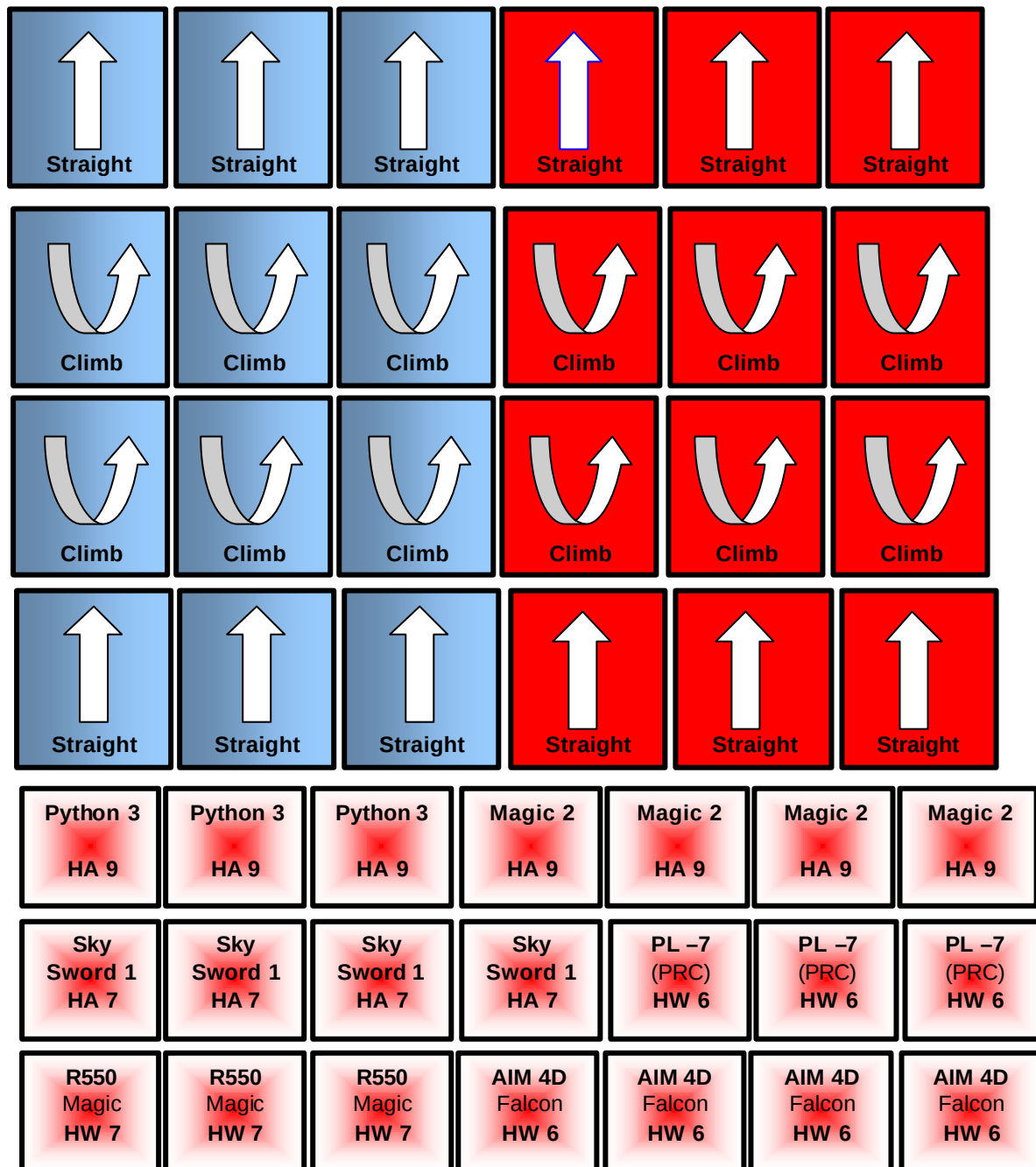


PHANTOMS 2009 UPDATE



[illegible]

Movement and Turning Counters 3



Speed and Altitude and Missile markers 2

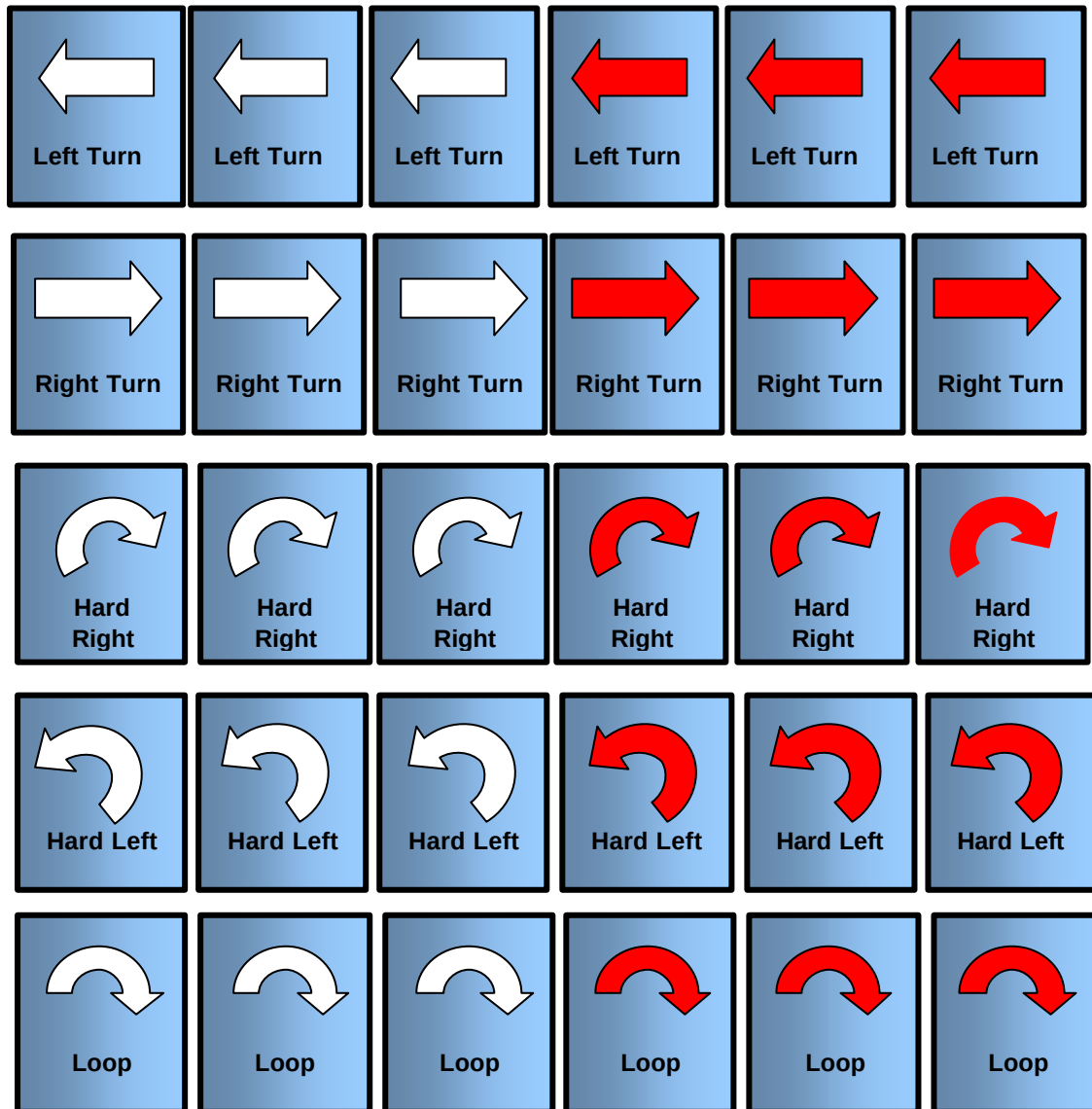
Speed 1	Speed 2	Speed 3	Speed 4	Speed 5
Speed 6	Speed 7	Speed 8	Speed 9	Speed 10

Altitude 1	Altitude 2	Altitude 3	Altitude 4	Altitude 5	Altitude 6
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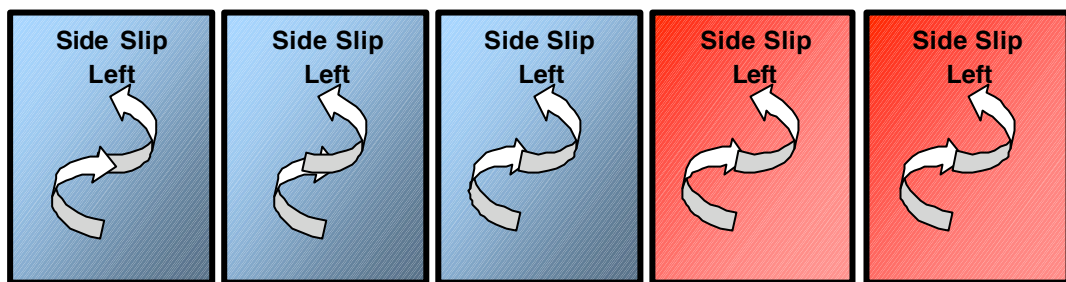
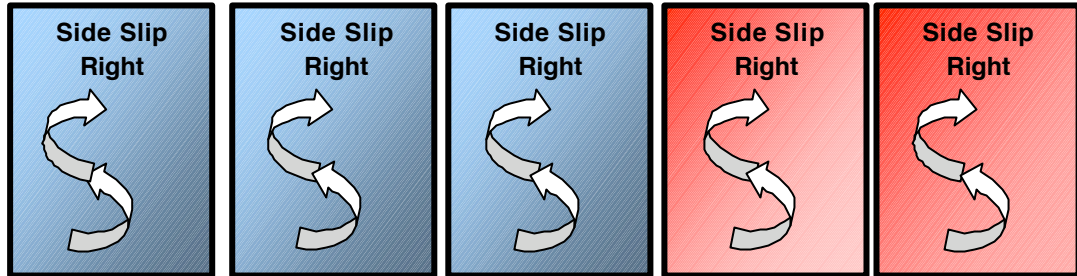
DIVE 1	DIVE 2	DIVE 3	DIVE 4	DIVE 5
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AA8 <i>Aphid</i> HA 7	AA8 <i>Aphid</i> HA 7	AA8 <i>Aphid</i> HA 7	AA8 <i>Aphid</i> HA 7	AA8 <i>Aphid</i> HA 7	AA8 <i>Aphid</i> HA 7	AA8 <i>Aphid</i> HA 7
AA7a <i>Apex</i> R 7	AA7a <i>Apex</i> R 7	AA7a <i>Apex</i> R 7	AA7a <i>Apex</i> R 7	AA7a <i>Apex</i> R 7	AA7a <i>Apex</i> R 7	AA7a <i>Apex</i> R 7
AA6b <i>Acrid</i> HW 7	AA6b <i>Acrid</i> HW 7	AA6b <i>Acrid</i> HW 7	AA6b <i>Acrid</i> HW 7	AA6b <i>Acrid</i> HW 7	AA6b <i>Acrid</i> HW 7	AA6b <i>Acrid</i> HW 7
In the WEEDS	In the WEEDS	In the WEEDS	In the WEEDS	In the WEEDS	In the WEEDS	In the WEEDS

Turn Markers



Side Slip Markers



AIM 120 AMRAAM R 12	AIM 120 AMRAAM R 12	AIM 120 AMRAAM R 12	AIM 120 AMRAAM R 12	AIM 120 AMRAAM R 12	AIM 120 AMRAAM R 12	AIM 120 AMRAAM R 12
---------------------------	---------------------------	---------------------------	---------------------------	---------------------------	---------------------------	---------------------------

AIM 54c Phoenix R 10	AIM 54c Phoenix R 10	AIM 54c Phoenix R 10	AIM 54c Phoenix R 10	AIM 54c Phoenix R 10	AIM 54c Phoenix R 10	AIM 54c Phoenix R 10
----------------------------	----------------------------	----------------------------	----------------------------	----------------------------	----------------------------	----------------------------

Skyflash R 8	Skyflash R 8	Skyflash R 8	Matra 530 R 6	Matra 530 R 6	Matra 530 R 6	Matra 530 R 6
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AIM 4 E/F Falcon R 6	AIM 4 E/F Falcon R 6	AIM 4 E/F Falcon R 6	AIM 4 E/F Falcon R 6	AIM 4 E/F Falcon R 6	AIM 4 E/F Falcon R 6	AIM 4 E/F Falcon R 6
----------------------------	----------------------------	----------------------------	----------------------------	----------------------------	----------------------------	----------------------------

AIM 7 E Sparrow R 7	AIM 7 E Sparrow R 7	AIM 7 E Sparrow R 7	AIM 7 E Sparrow R 7	AIM 7 F/M Sparrow R 9	AIM 7 F/M Sparrow R 9	AIM 7 F/M Sparrow R 9
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D.H. Sea Vixen FAW2

All round vision canopy, large aircraft, 2 crew

Speed

Max Load 5

Max Level 6

Max Dive 6

Altitude

5

Damage

6

Ammo

4

Attack value

Action	Speed change
Normal Engine	-2 to +4
Damaged Engine	-3 to +2
Climb 1 Level	-3
Dive 1 Level	+2

In Service 1964 -72

Fleet air defence

4 - Red Top IR (HN)
4 - Firestreak IR (HW)

Ground Attack

4 - Matra SNEB rocket pods
2 - 500lb bombs
or
2 - Bullpup GBU

ECM = 2
Radar Rating = 2

Manoeuvre Chart

Manoeuvre/ Speed	1-2	3-4	5	6	7	8	9	10	Speed Loss
Roll	1	2	2	3	-	-	-	-	0
Turn	1	2	4	5	-	-	-	-	-1*
Hard or Split 'S' Turn	-	3	-	-	-	-	-	-	-2
Loop	-	2	-	-	-	-	-	-	-3

When loaded: +1 to all manoeuvre numbers. No hard turns or loops. (*) Only at speed 6

Damage

6

Ammo

4

Attack value

Damage

6

Ammo

4

Attack value

Damage

6

Ammo

4

Attack value

Pilot rating Sea Vixen 2

Pilot rating Sea Vixen 3

Pilot rating Sea Vixen 4

Die Difference	1	2	3	4	5	6	7	8	9	10+	Gun Combat information
Damage	-	-	-	-	-	-	-	-	-	-	

Speed and Altitude and Missile markers 2

Speed 1	Speed 2	Speed 3	Speed 4	Speed 5	Speed 12
Speed 6	Speed 7	Speed 8	Speed 9	Speed 10	Speed 11

Altitude 1	Altitude 2	Altitude 3	Altitude 4	Altitude 5	Altitude 6	Altitude 7
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DIVE 1	DIVE 2	DIVE 3	DIVE 4	DIVE 5
-----------	-----------	-----------	-----------	-----------

AA8 <i>Aphid</i> HA 7	AA8 <i>Aphid</i> HA 7	AA8 <i>Aphid</i> HA 7	AA8 <i>Aphid</i> HA 7	AA8 <i>Aphid</i> HA 7	AA8 <i>Aphid</i> HA 7	AA8 <i>Aphid</i> HA 7
AA7a <i>Apex</i> R 7	AA7a <i>Apex</i> R 7	AA7a <i>Apex</i> R 7	AA7a <i>Apex</i> R 7	AA7a <i>Apex</i> R 7	AA7a <i>Apex</i> R 7	AA7a <i>Apex</i> R 7
AA6b <i>Acrid</i> HW 7	AA6b <i>Acrid</i> HW 7	AA6b <i>Acrid</i> HW 7	AA6b <i>Acrid</i> HW 7	AA6b <i>Acrid</i> HW 7	AA6b <i>Acrid</i> HW 7	AA6b <i>Acrid</i> HW 7
In the WEEDS	In the WEEDS	In the WEEDS	In the WEEDS	In the WEEDS	In the WEEDS	In the WEEDS

Canberra B(1) and B(1)8

Canberra B(1)

Pilot Rating

Large aircraft, 2-crew

Speed

Max Load 4

Max Level 5

Max Dive 6

Altitude

5

Damage

6

Attack

Action

Speed change

Normal Engine

-2 to +3

Damaged Engine

-3 to +1

Climb 1 Level

-2

Dive 1 Level

+2

Countermeasures

Radar and IR = 1

Advanced bombsight.

From 1955 Canberra's carried 'Green Satin' Doppler navigation radar for precision bombing and nuclear strikes.

An RWR unit was fitted to some units, including PR7-6 aircraft known as 'Orange Putter'

Manoeuvre Chart

Manoeuvre/ Speed	1-2	3-4	5	6	7	8	9	10	Speed Loss
Roll	1	2	3	-	-	-	-	-	0
Turn	1	2	3	-	-	-	-	-	-1
Hard or Split 'S' Turn	-	2	-	-	-	-	-	-	-2
Loop	-	2	-	-	-	-	-	-	-3

When loaded: +1 to all manoeuvre numbers. No hard turns or loops.

Damage

6

Ammo

Damage

6

Ammo

Damage

6

Ammo

Pilot rating

Canberra 2

Pilot rating

Canberra 3

Pilot rating

Canberra 4

Die Difference information

Damage

	1	2	3	4	5	6	7	8	9	10+	Gun Combat
Damage	-	-	-	-	-	-	-	-	-	-	

B52 D & G

B52 D & G

Pilot Rating

Large aircraft, 6-7-crew

Speed	Altitude	Damage	Attack	<table border="1"> <tr> <th>Action</th> <th>Speed change</th> </tr> <tr> <td>Normal Engine</td> <td>-2 to +2</td> </tr> <tr> <td>Damaged Engine</td> <td>-3 to +1</td> </tr> <tr> <td>Climb 1 Level</td> <td>-2</td> </tr> <tr> <td>Dive 1 Level</td> <td>+2</td> </tr> </table>	Action	Speed change	Normal Engine	-2 to +2	Damaged Engine	-3 to +1	Climb 1 Level	-2	Dive 1 Level	+2
Action	Speed change													
Normal Engine	-2 to +2													
Damaged Engine	-3 to +1													
Climb 1 Level	-2													
Dive 1 Level	+2													
Max Load 4	5	12												
Max Level 5														
Max Dive 5														

In Service 1952- 2009

Countermeasures

B52D Radar =3 IR =1
B52G Radar =4 IR=2

Advanced bombsight.

Bomb load

106 Mk82 500lb iron bombs

Special Note:

B52's in Linebacker II were capable of extreme bombing accuracy due to new radar bombing system. Increase dice roll on Standard Bombing Table (page 5) by +2

Manoeuvre movement cost (number of hexes marker placed in front of aircraft heading) at various speeds										
Manoeuvre cost/ Speed	1-2	3-4	5	6	7	8	9	10	Speed Loss	
Roll	-	-	-	-	-	-	-	-	0	
Turn	2	3	4	-	-	-	-	-	-2	
Hard or Split 'S' Turn	-	-	-	-	-	-	-	-	-	
Loop	-	-	-	-	-	-	-	-	-	

Damage 12	Ammo 	Damage 12	Ammo 	Damage 12	Ammo
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Pilot rating

B52 No 2

Pilot rating

B52 No 3

Pilot rating

B52 No 4

Die Difference information	1	2	3	4	5	6	7	8	9	10+	Gun Combat
Damage	0	0	1	1	2	2	2	3	3	4	1-20mm cannon

IL 28 Beagle

Pilot Rating

Page 10

Large aircraft, 3-crew

Large aircraft, 3-crew

The diagram illustrates the layout of the game board, which consists of four colored squares and a table of actions and speed changes.

- Speed (Red square):** Contains the text "Speed", "Max Load 4", "Max Level 5", and "Max Dive 6".
- Altitude (Blue square):** Contains the number "5".
- Damage (Yellow square):** Contains the number "6" and a horizontal row of seven empty squares.
- Attack (Grey square):** Contains a horizontal row of four empty squares and the text "Attack".

Action	Speed change
Normal Engine	-2 to +3
Damaged Engine	-3 to +1
Climb 1 Level	-2
Dive 1 Level	+2

Manoeuvre movement cost (number of hexes marker placed in front of aircraft heading) at various speeds

Manoeuvre cost/ Speed	1-2	3-4	5	6	7	8	9	10	Speed Loss
Turn	1	2	3	4-	-	-	-	-	-1
Hard or Split 'S' Turn	1	2	-	-	-	-	-	-	-3

When loaded: +1 to all manoeuvre numbers. No hard turns.

**In Service 1951- 90
Withdrawn from front line
service about 1960.**

Countermeasures

Radar and IR = 1 (1951- 55)
Radar and IR = 2 (1956 -62)
Radar and IR = 2 (1963 -90)

Advanced bombsight assisted by terrain mapping radar

Conventional bomb load:
6- 500lb iron bombs

Nuclear weapons

1- free fall nuclear bomb

Reconnaissance model used extensively for Hungarian invasion 1956 and Czechoslovakia 1968. ECM aircraft developed but few details released.

Naval IL28 trials for torpedo attacks not successful, Naval aircraft seem to have been used in recon and bombing attack role

Most IL28 seconded to training units by 1960.

The diagram illustrates three scenarios of a pilot's decision to abort a landing based on damage and ammo status. Each scenario is represented by a pair of cards: a yellow 'Damage' card and a grey 'Ammo' card. Below each pair is a 'Pilot rating' box.

- Scenario 1 (Left):** The 'Damage' card shows 6 damage (6 filled squares) and 7 empty squares. The 'Ammo' card shows 4 empty squares. The 'Pilot rating' box shows 'IL28 2'.
- Scenario 2 (Middle):** The 'Damage' card shows 6 damage (6 filled squares) and 7 empty squares. The 'Ammo' card shows 4 empty squares. The 'Pilot rating' box shows 'IL28 3'.
- Scenario 3 (Right):** The 'Damage' card shows 6 damage (6 filled squares) and 7 empty squares. The 'Ammo' card shows 4 empty squares. The 'Pilot rating' box shows 'IL28 4'.

Die Difference	1	2	3	4	5	6	7	8	9	10+	Gun Combat
Damage	1	1	1	2	2	3	3	4	4	5	2-23mm GSh.

D.H. Sea Vixen FAW2

All round vision canopy, large aircraft, 2 crew

Speed Max Load 5 Max Level 6 Max Dive 6	Altitude 5	Damage 6	Ammo 4 Attack value	Action Normal Engine -2 to +4 Damaged Engine -3 to +2 Climb 1 Level -3 Dive 1 Level +2	Speed change
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In Service 1964 –72

Fleet air defence

4 - Red Top IR (HN)
 4 -Firestreak IR (HW)

Ground Attack

4 -Matra SNEB rocket pods
 2 - 500lb bombs
 or
 2 –Bullpup GBU

Radar GEC AI 18.

No look down. Air to Air only

ECM = 2

Radar Rating = 2

Very difficult aircraft for radar operator to exist in emergency –1 to bail out roll.

Pilot rating should not be less than experienced (+2)

Manoeuvre movement cost (number of hexes marker placed in front of aircraft heading) at various speeds									
Manoeuvre cost/ Speed	1-2	3-4	5	6	7	8	9	10	Speed Loss
Roll	1	2	2	3	-	-	-	-	0
Turn	1	2	4	5	-	-	-	-	-1*
Hard or Split 'S' Turn	-	3	-	-	-	-	-	-	-2
Loop	-	2	-	-	-	-	-	-	-3

When loaded: +1 to all manoeuvre numbers. No hard turns or loops. (*) Only at speed 6

Damage 6	Ammo 4 Attack value	Damage 6	Ammo 4 Attack value	Damage 6	Ammo 4 Attack value
Pilot rating	Sea Vixen 2	Pilot rating	Sea Vixen 3	Pilot rating	Sea Vixen 4

Die Difference	1	2	3	4	5	6	7	8	9	10+	Gun Combat information
Damage	-	-	-	-	-	-	-	-	-	-	

B2 Stealth Bomber

B2

Pilot Rating

Large aircraft, 3 Crew, **STEALTH RULES**

Speed

Max Load 5

Max Level 8

Max Dive 9

Altitude

7

Damage

12

Attack

Action	Speed change
Normal Engine	-2 to +3
Damaged Engine	-3 to +1
Climb 1 Level	-1
Dive 1 Level	+3

In Service 1992 - 2009

Countermeasures

Radar =7 IR=5

Pilot rating should average or better.

Computer bombsight with satellite targeting.

Highly accurate bombing

Increase bombing accuracy dice roll by +4

Bomb load

106 Mk82 500lb iron bombs.

Multiple long range ALCM and guided munitions can also be carried. Refer to special weapons tables for details.

Manoeuvre movement cost (number of hexes marker placed in front of aircraft heading) at various speeds									
Manoeuvre cost/ Speed	1-2	3-4	5	6	7	8	9	10	Speed Loss
Roll	-	-	-	-	-	-	-	-	0
Turn	2	3	4	4	5	5	6	-	-2
Hard turn	2	4	5	6	-	-	-	-	-4
Loop	-	-	-	-	-	-	-	-	-

Damage

12

Ammo

Damage

12

Ammo

Damage

12

Ammo

Pilot rating

B2 No 2

Pilot rating

B2 No 3

Pilot rating

B2 No 4

Die Difference information

1

2

3

4

5

6

7

8

9

10+

Gun Combat

Damage

-

-

-

-

-

-

-

-

-

-

Type	Name	Homing	Altitude	Range		Type	Altitude range	Max range	Attack factor	Launch roll
SA-2	Guideline	R	med to high	med		RA	0-6	32	2	7
SA-3	Goa	R	med	med		RA	0-3	10	3	
SA-4	Ganef	R	med to high	long		RA	0-6	45	4	
SA-5	Gammon	R	med to high	long		RA	0-6	45	4	
SA-6	Gainful	R	low	med		RA	0-2	10	5	
SA-7	Grail	IR	low	short		HS	0-2	2	2	7
SA-8	Gecko	R	low	short		RA	0-1	2	3	
SA-9	Gaskin	IR	low	short		HS	0-1	2	4	
SA-10	Grumble	R	low to high	long		RA	0-6	10	6	
SA-11	Gadfly	R	low	med		RA	0-3	10	6	
SA-12	Gladiator	R	low to high	med		RA	0-3	10	6	
SA-13	Gopher	IR	low	short		HS	0-3	2	3	
SA-15	Gauntlet	R	low to med	short		RA	0-3	2	3	
	Hawk	R	low to med	med		RA	0-3	10	4	
	Chaparral	IR	low	short		HS	0-2	2	2	
	Rapier	R	low	short		RA	0-1	1	2	
	Roland	R	low	short		RA	0-2	2	2	
	Stinger	IR	low	short		HS	0-1	1	3	
	Patriot	R	low to high	short to long		RA	0-6	45	7	
	Crotale	R	low	short		RA	0-2	2	3	
	javelin	IR	low	short		HS	0-1	1	3	
	Mistral	IR	low	short		HS	0-1	1	2	
	Sky guard	R			Sparrow	RA				