

SPACEFLIGHT

This file is owned by: **John Guentzel**

Last updated 05-22-97 - bjc

HUD Rationale

It's important to understand what we're trying to do with these HUDs before we get into this doc.

GOAL #1

Make the player 'feel' like he's in different ships, because he IS! We can use different ship types as the first differentiating point.

- Ship type #1 Fighter (designed with least screen clutter in the letterbox view)
- Ship type #2 Fighter with Wild Weasel loadout (with additional features and similar to fighter).
- Ship type #3 Bomber (more boxed-in feeling, with attention to keeping the central cone of view clear to get a lock on those torpedoes).

THE PLAN TO ACHIEVE GOAL #1

- MAKE SURE EVERYONE UNDERSTANDS THESE GOALS! This is the most important goal of all.
- Create a different HUD layout for each ship, with general rules for feel determined by the type of ship.
 - Ship type #1 Fighter (designed with least screen clutter in the letterbox view)
 - Ship type #2 Fighter with Wild Weasel loadout (with additional features and similar to fighter).
 - Ship type #3 Bomber (more boxed-in feeling, with attention to keeping the central cone of view clear to get a lock on those torpedoes).
- Create different struts for each ship, and have them match the layout, the mesh, and the 'feel' of the ship.

GOAL #2

Give the player a sense of flying.

THE PLAN TO ACHIEVE GOAL #2

- Make the struts 'move' as if they were in a real ship.

GOAL #3

Different layouts with similar types of gauges.

THE PLAN TO ACHIEVE GOAL #3

- Different layouts are easy. Some with the radar on the top, some on the bottom, some off-center.
- Similar, but different gauges will require more artwork, but will give the 'sense' of being in another ship.

GOAL #4

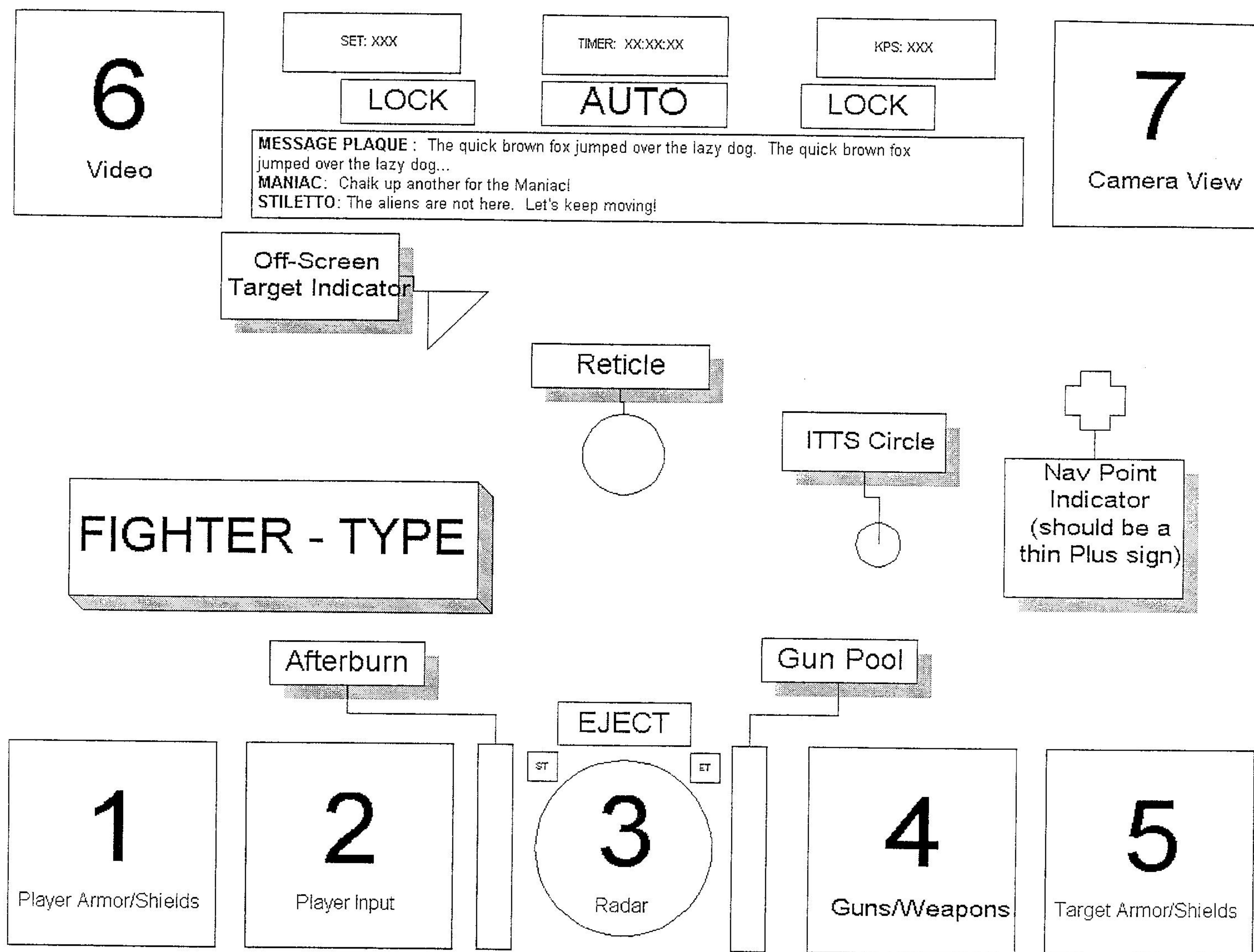
Keep our roots clearly in focus, while looking forward to the future of Wing Commander.

THE PLAN TO ACHIEVE GOAL #4

- Look at the previous HUDs from 1 and 2 and emulate them.
- Bring the artwork and technical functionality to the quality we're expecting out of a next generation game.

The look I'm trying to achieve with this feel is more like Wing 1 and 2, than 3 and 4. In that I mean that each ship's HUD layout should be different. I realize this flies in the face of modern day fighting craft, but it's important in that the PLAYER doesn't have the feeling that all ships are the same.

BASIC Cockpit / HUD Mock-ups without cockpit frames



Multi-Function Displays (MFDs) and Single Function Displays (SFDs)

SFD 1 - Player's Armor / Shield - This shows both at once. Very similar to the smaller armor view in previous WCs (I and II). The difference is we're trying to use icons for the armor levels instead of color on that quadrant. Like the smaller armor icons on previous games. This will facilitate multiple weapons in multiplayer, and release us of the need to draw this stuff twice.

Player Armor

- 2D View of exact ship type.
- Each ship will have 1-4 layers of armor. The stats follow in a small chart.
- When the Player's ship armor is damaged, the appropriate area (fore, aft, port, starboard) of the armor will be taken off.
- The central mesh will change color (green - fine; yellow- damaged; red - critical) ONLY when the core is taking damage.
- The wire mesh will be surrounded by shield indicator (front and rear shields).
- Player ships will be vertical.

Player Shields

- On the same ship icon as armor.
- Ships will have 1-8 levels of shield in front and a matching level in rear. Following are the stats for the Confed ships (Fighters and Bombers).
- At the top level of shields, there should be a level for INVULNERABLE.

(S)hield Configuration

Shield Config. Display: By holding (S) down there will be a slider that will take joystick input like the power distribution bar, except that it's only got FRONT and REAR. There should be a printout of the Shield Allocation in percentages (%), both front and rear.

This display shows the status of the players shields (Forward and Aft). The player may also adjust the shield configuration (100% forward, 75% fore & 25% aft, 50% fore and aft, 25% fore & 75% aft, 100% aft) with a hotkey that toggles through these settings. [Use SHIFT+S as a default for now.]

Chaff Available

- There needs to be a readout of the available chaff on this display.

FIGHTERS

F -106a Piranha Scout Fighter

Shield Strength Fore/Aft: 200/100 cm equiv.

Shield Recharge Rate: 50 cm

Armor Strength Fore/Aft/Port/Starboard: 100/50/70/70 cm

F/A-105a Tigershark Multi-Role Fighter

Shield Strength Fore/Aft: 200/200 cm equiv.

Shield Recharge Rate: 75 cm equiv.

Armor Strength Fore/Aft/Port/Starboard: 80/80/80/80 cm

F-110a Wasp Interceptor

Shield Strength Fore/Aft: 150/130 cm equiv.

Shield Recharge Rate: 100 cm equiv.

Armor Strength Fore/Aft/Port/Starboard: 60/60/60/60 cm

F-108a Panther Space Superiority Fighter (Class B)

Shield Strength Fore/Aft: 250/200 cm equiv.

Shield Recharge Rate: 80 cm equiv.

Armor Strength Fore/Aft/Port/Starboard: 100/100/100/100

F-109a Vampire Space Superiority Fighter (Class A)

Shield Strength Fore/Aft: 400/300 cm equiv.

Shield Recharge Rate: 225 cm equiv.

Armor Strength Fore/Aft/Port/Starboard: 120/120/120/120 cm

BOMBERS

TB-81a Shrike Torpedo Bomber (Class B)

Shield Strength Fore/Aft: 300/280 cm equiv.

Shield Recharge Rate: 175 cm equiv.

Armor Strength Fore/Aft/Port/Starboard: 160/140/150/150 cm

TB-80a Devastator Torpedo Bomber (Class A)

Shield Strength Fore/Aft: 350/300 cm equiv.

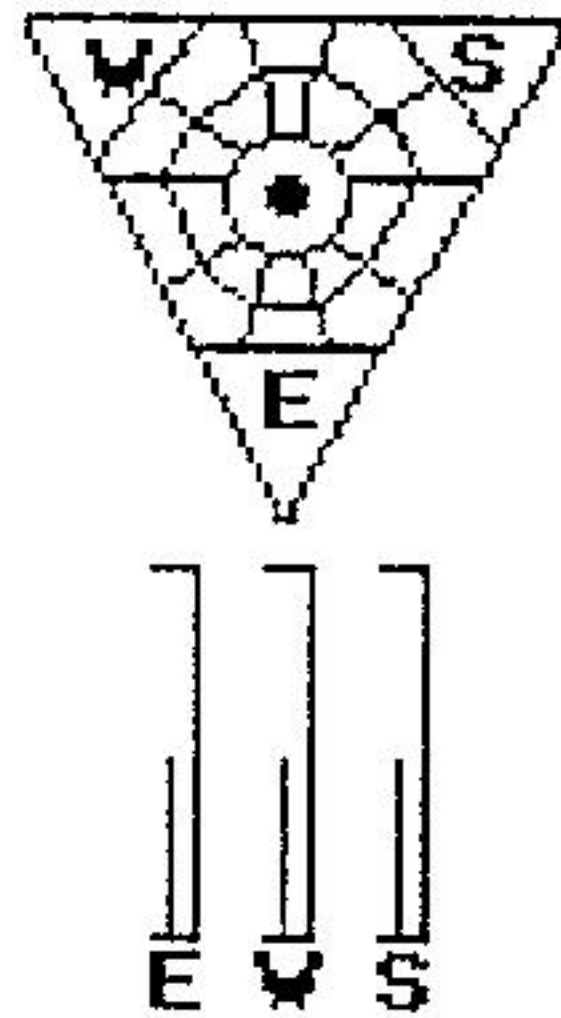
Shield Recharge Rate: 200 cm equiv.

Armor Fore/Aft/Port/Starboard: 200/200/160/160 cm

MFD 2 - Player Input - Pressing C, P, D, or S will pull up the appropriate display in the window.

(C)omm. Options - Activated/Deactivated by the player (10 sec. auto shut-off) or the ships computer (upon receiving a comm from another pilot that requires a reply, no auto shut-off) , Shows player his communication choices for communicating with other pilots/ships

(P)ower Distribution -

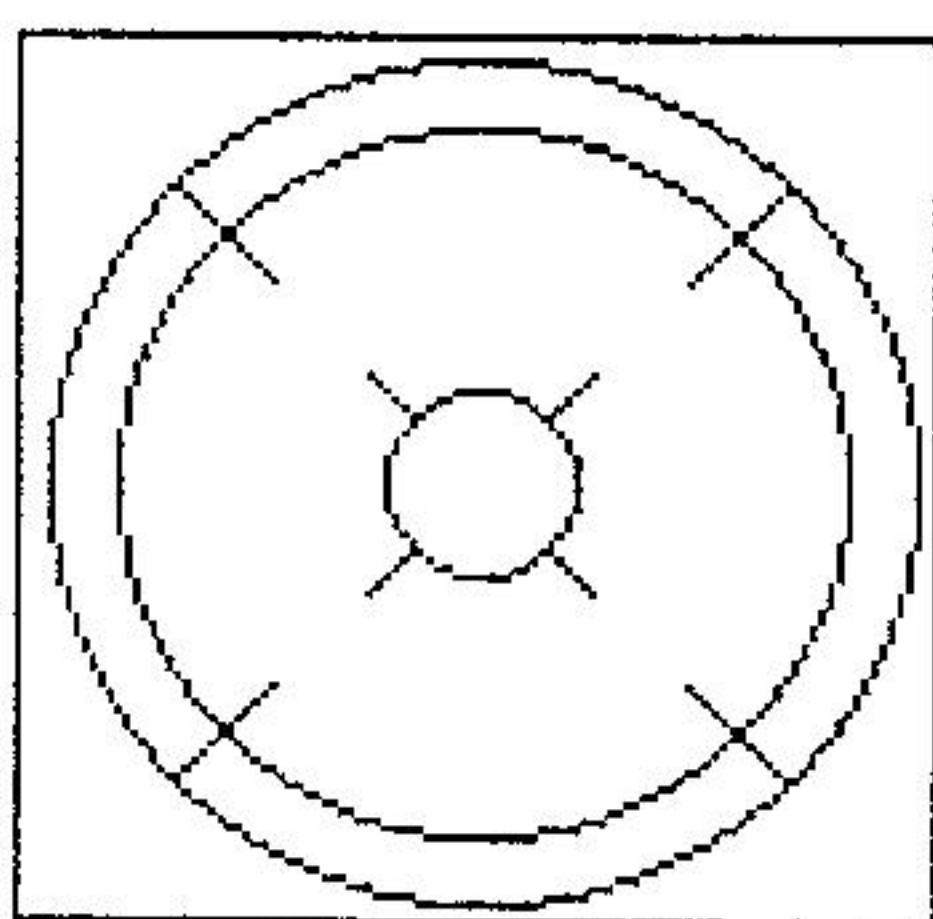


Power Distribution Display - Activated/Deactivated by the player (10 sec. auto shut-off), brought up to adjust energy levels in areas including **Engines**, **Shields** and **Weapons** systems. It appears as a triangle, with the three configurable systems represented at each corner: **E** for Engines, **S** for Shields, and **W** for Weapons. The player activates the power configuration option by holding down "P", and moves a small pip in the center of the triangle nearer or farther away from each system. There are also hotkeys which allow the player to access a preset power position with a simple keystroke. The vertical bars underneath the power allocation grid are a graphical representation (% bar graphs) of the relative power level in each system, and will change in accordance with the pip's position on the power allocation grid.

(D)amage display

This should be a visual display of what systems are damaged/destroyed, and should indicate to the player that the systems that are damaged are being repaired.

SFD 3 - Radar



Radar Display - Persistent display, the radar will act as in previous Wing Commanders. Central circle is player's view cone, quads are to the sides of player, outer ring is behind player.

MFD 4 - Gun and Missile Display

- **Gun Display** - Displays currently selected GUN type both visually (as gun icons) and in text format (selected gun - top left, selected missile - top right) the weapon icons will be color coded to indicate selected weapons and damage levels.

- **Green lit** = no damage
- **Yellow lit** = marginal damage
- **Red lit** = critical damage
- **Gray lit** = destroyed

Should show both left and right guns.

Should say FULL GUNS if that is selected.

- **Missile Display** - Displays currently selected MISSILE type (and # of available missiles per hard-point) both visually (missile icons) and in text format (selected gun - top left, selected missile - top right) the weapon icons will be color coded to indicate selected weapons and damage levels.
(**green lit** = no damage, **yellow lit** = marginal damage, **red lit** = critical damage, **gray lit** = destroyed)
(**bright green lit** = selected, no damage, **bright yellow lit** = selected, marginal damage, **bright red lit** = selected, critical damage)

MFD **5** - Target Display

- **FIGHTERS/BOMBERS** - A 2D image of the targeted ship showing
 - *Ship name* (or 'pilot name')
 - *Range* (displayed in text) of the targeted ship.
 - **Target Armor** - 2D View of exact ship type. When the target's armor is damaged, the appropriate area (fore, aft, port, starboard) of the armor will be taken off. The central mesh will change color (green - fine; yellow-damaged; red - critical) ONLY when the core is taking damage. The wire mesh will be surrounded by shield indicator (front and rear shields). Target ships will be horizontal.
 - *Colored Wire-frame Mesh* - When the targeted ship's armor is damaged, the appropriate quad of the mesh/image will change color
 - **green** - fine
 - **yellow**- damaged
 - **red** - critical).
 - The wire mesh will be surrounded by target's shield indicator (**front shield, back shield**).
- **CAPITAL SHIPS (non-enhanced targeting)** - A 2D image of the targeted ship showing
 - *Ship name* (or 'pilot name')
 - *Range* (displayed in text) of the targeted ship.
 - *Colored Wire-frame Mesh* - When the targeted ship's armor is damaged, the appropriate quad of the mesh/image will change color
 - **green** - fine
 - **yellow**- damaged
 - **red** - critical).
 - The wire mesh will be surrounded by target's shield indicator (**front shield, back shield**).
- **CAPITAL SHIPS (enhanced targeting)** - A 2D image of the targeted ship's constituent part showing
 - *Part name* (or 'pilot name')
 - *Range* (displayed in text) of the targeted ship.
 - *Colored Wire-frame Mesh* - When the targeted ship's armor is damaged, the appropriate quad of the mesh/image will change color
 - **green** - fine
 - **yellow**- damaged
 - **red** - critical).
 - The wire mesh will be surrounded by target's shield indicator (**front shield, back shield**).

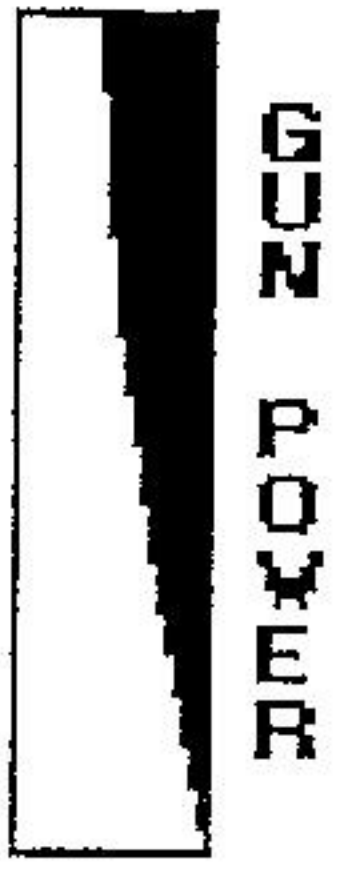
SFD **6** - Comm Video Playback

- This is the area where incoming comms will be played at, away from any other type of screen. It can have a border, but will be turned off if not in use. Activated/Deactivated by the ships computer when receiving comms from other pilots/ships (Beta-Videos/still shots of NPC/ships in-flight communication)

MFD **7** - Camera - Can switch between:

- **Target Cam** [Activated/Deactivated by the player, no auto shut-off] a REAL TIME game engine camera view that shows the PLAYER'S current TARGET. With text overlays showing:
 - Target name
 - Range
 - Approximate shield (as a %)
 - Damage levels (None, Light, Moderate, Heavy Damage).
- **Rear Cam** - [Activated/Deactivated by the player, no auto shut-off] a REAL TIME game engine camera view from the player's ship looking aft. (in addition to the possible REAR VIEW MIRRORS mounted on the cockpit struts.)
- **Missile Cam** - [Activated/Deactivated by the player, no auto shut-off] a full motion game engine camera following the missiles flight to its target. When no missile has been fired, the screen may simply display a small "Missile Cam Active" message or might show a constant forward view (with inset cross-hairs?) from the missile while it is secured to the hardpoint.
- **Bomb Cam** - On a BOMBER, there is an additional camera, that will face the target below the bomber, for types of missiles that 'drop' from the ship.

SFD INDICATORS and Simple Gauges



Gun Pool - Persistent display. Shows the current gun energy available. Will lower as guns are fired and rise back to maximum as the guns are recharged. (Cloaking device will also draw from this power pool.)



Afterburn - Persistent display, Shows the amount of afterburner fuel left.

XX:XX:XX

Timer - Mission Clock Persistent display, Starts a zero and counts off seconds, minutes and hours as soon as the mission starts.

Players will be able to compare mission times in discussions on the Internet. Some missions may end up being very time oriented and a constant visible clock in the cockpit could aid a player in making strategic decisions.

SET: XXXX

Set - Set Speed Indicator Persistent display, Shows current set speed numerically.

XXXX KPS

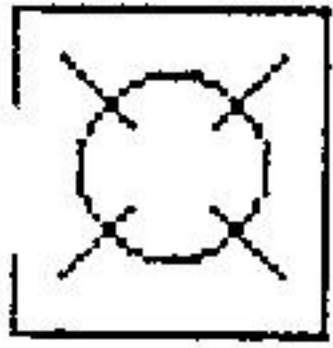
KPS - Current Speed Indicator Persistent display, Shows actual speed numerically.

AUTO

AUTO - Autopilot Indicator. Activated by the Computer when the autopilot function is available. Auto is available whenever there are no ships that can chase you. Autopilot is effectively time dilation, as if you were sleeping. You should be able to Autopilot away from turrets, cargo containers, and cap ships for example.

LOCK

LOCK - incoming Missile Lock Indicator. Activated by the Computer, A warning light marked LOCK, indicating that an enemy ships had locked its weapons systems onto the players craft.



Reticle - SFD center reticle. Persistent display, denotes (roughly) the center of the HUD, the direction the player ship is pointed. Should be very small.

Each gun will have a different reticle:

- Lasers
- Mass Drivers
- Tachyon Gun
- Plasma gun
- Ion Cannon
- Grenade Gatling Gun (uses ammo)
- Cloaking Device - Only available as a powerup in Multiplayer.
- Leech Gun - Only available as a powerup in Multiplayer.
- Full guns - will have to have a separate reticle.



EJECT - Warning light. Activated by the player (when the ejection sequence is activated) or by the computer as a warning to the player, that the ship has taken critical damage and is close to being destroyed. Flashes or pulses and is associated with a warning sound.

Nav Point Indicator - Current Nav point marker. Persistent display, displayed by the HUD system, indicates the players currently selected Nav point. Also appears on the radar as a white blip.

ITTS Circle - Inertial Targeting and Tracking System. Activated/Deactivated by the Computer (when there are hostile targets in the area).

- Does not appear in a bomber
- Only in fighters.
- Will always be the same, no matter what gun you have selected.
- Since all targets are assumed to be always locked, the ITTS will engage whenever the bracketed target is within range of the selected guns.

Message Plaque - Activated by the computer when receiving comms from other craft, display the message text. Four lines of text at least, readable, first prints name of sender , either a PILOTNAME or COMPUTER, then “:” and then the message in quotes.

TARGETING

Changing Targets - Press (T) to cycle through available targets.

Smart Targeting (S) - will only target the Hostiles in the actionsphere.

Damage bar - Target hit points should be on a damage bar, like C&C, under the brackets. The meter should diminish to the center as the points drop.

Containers - When a container is targeted, the player must get in range of the container to identify it.

- "UNKNOWN" is not in range
- "STRING_NAME" if in range
- targeting system keeps track of all targets previously identified

ITTS Activation - Gun Range to Target activates ITTS system. Bombers do not have ITTS.

Match speed - with target (Y).

LOCK - Pressing (L) engages LOCK targeting and allows the player to change child object targets on capital ships.

Missile Target Lock indicator - Activated/Deactivated by the Computer (when there are hostile targets in the area). If you have missiles selected that require a lock and a targeted ship comes into view, this will display the locking animation (ala WC3 : green cross-hairs that converged on the target for a lock).

BRACKETS

The bracket colors mean a LOT to Wing Commander fans, and to the user. They will need to be drawn in different colors for different types of ships, enemy or friendly, ship types (Cap ship or fighter) constituent parts (turrets on cap ships), etc.

We will handle these brackets with line art, not animations.

Comm Brackets - White. Activated by the computer when receiving comms from other craft, designates which craft is sending the comm. [Programmers will handle this.]

Targeting Brackets - Designates which craft the player's targeting system is currently locked onto.

Bracket colors

- Red Enemy
- Orange Enemy turrets / Enemy cap ships
- Blue Friendly ships
- Light blue Friendly cap ships
- Yellow Missile/turrets
- White Comms
- Gray Neutral
- Yellow Enemy missiles
- Yellow Solid Missiles locked on you!

RADAR

Blip colors

- Red Enemy fighter
- Blue Friendly fighter
- Orange Enemy cap ship
- Light blue Friendly cap ship
- White cross Nav point
- Yellow Missile
- Purple Ejected friendly
- Gray Neutral/Leeched

MISSILE LOCKING

Different looking line draws for each missile-type.

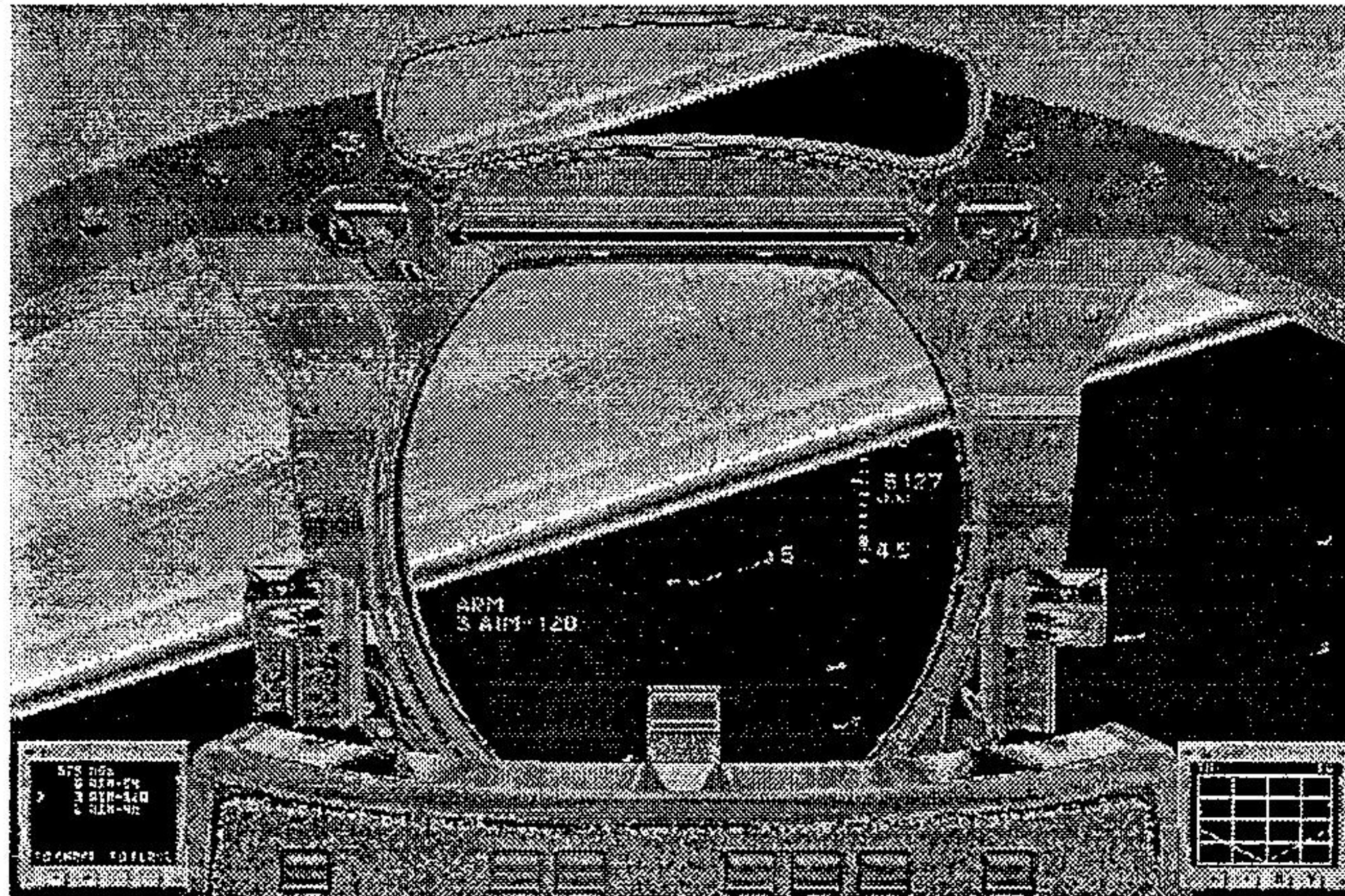
Realizing that 11 is a lot, do one first, and we'll add the rest as we go.

1. **Rocket pods** - Multiple(6-12 per pack) unguided rockets, no lock, all aspect - All fighters
2. **Dumbfire Missile** - Single unguided rocket, no lock required, all aspect - All fighters
3. **Friend or Foe** - Internally-guided fire and forget missile, no lock required, all aspect - All fighters
4. **Heat Seeker Missile** - Lock-guided fire and forget missile, rear aspect only - All fighters
5. **Image Rec missile** - Lock-guided fire and forget missile, all aspect - All fighters
6. **Leech Missile** - Lock-guided fire and forget missile, drains engine pool, all aspect - All fighters
7. **Swarmer Anti-bomber rocket-packs** - Laser designator-guided Missiles with 12 or more warheads, must maintain lock (keep target in view cone), all aspect - Wasp only
8. **Tracker 'smart' missile** - Two stage Multiple warhead or MIRV missile unguided at first, fans into six smaller guided Friend or Foe type missiles, all aspect - Vampire and Devastator only
9. **Anti-Radiation Missile** - Guided fire and forget missile locks onto radar emitting sources (turrets and comm dishes), all aspect - Shrike and Devastator, Wild Weasel loadouts only
10. **Anti-Shipping Bomb Rack** (Cluster type warhead) - Rack of 12 to 24 bottom firing, unguided, no lock, all aspect, small dumb fire type missiles that do a moderate amount of damage to shields and armor equally - Shrike and Devastator, Bomber loadout only
11. **Light Torpedo** - Guided fire and forget missile locks onto Starships only, all aspect - Shrike and Devastator Bomber loadout only.

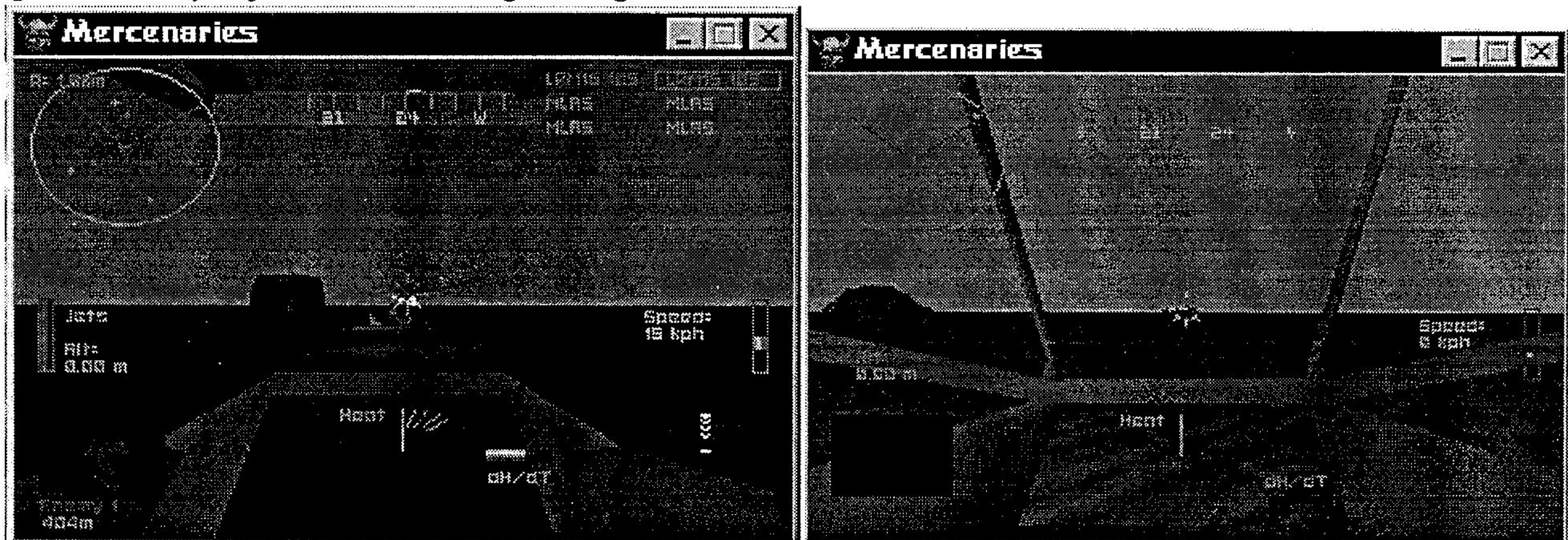
Cockpit Frames

The idea behind the cockpit frames is to help project the idea that the player is flying something other than an SVGA monitor. Ideally, the 'cockpits' in Wing: Prophecy would lie somewhere between those of USNF'97 and MECH2/MERCENARIES.

USNF'97 : LARGE, highly detailed cockpit frames, VERY limited vertical/horizontal movement, bitmap? images, also note the rear view mirror. (But ignore the ghastly palette)



Mech2/Mercenaries : Small, at least in terms of screen occlusion, flat shaded polygons that have good horizontal/vertical movement, and are light sourced by objects/effects in the game engine.



The cockpit frames should reflect more of the MECH2 style, having more V/H movement and the ability to be light sourced by the game engine, but have (hopefully) more detail than MECH2's flat-shaded frames. Since (currently) we are NOT supporting "eye-panning" (where the player could use the cursor keys to slew the view U/D/L/R), the cockpit frames would only need to be represented in the forward view.

Also it would be nice (as in USNF'97) to have rear view mirror's mounted on the cockpit frames, in different locations for the different fighters to help differentiate them. (contingent on the programmers , as the curved mirrors may require a special camera of their own..)

Multiple HUD Configurations

Please see Visio docs for layouts of each individual ship.

Wasp Interceptor - The Fighters HUD should have all of the elements of the previous Wing Commanders with maybe adding multiple targeting capabilities to the newer more advanced ships. There might also be multiple HUD modes, Dogfight - the slickest of HUDs with little clutter to obscure your vision, but lots of target pointers and targeting information. Targeting other fighters, Intercept - targeting bombers and cap-ship missiles, Strike - which should allow you to target cap-ships and their points of interest (turrets, engines).

Tigershark Fighter - The Fighters HUD should have all of the elements of the previous Wing Commanders with maybe adding multiple targeting capabilities to the newer more advanced ships. There might also be multiple HUD modes, Dogfight - the slickest of HUDs with little clutter to obscure your vision, but lots of target pointers and targeting information. Targeting other fighters, Intercept - targeting bombers and cap-ship missiles, Strike - which should allow you to target cap-ships and their points of interest (turrets, engines).

Vampire Fighter - The Fighters HUD should have all of the elements of the previous Wing Commanders with maybe adding multiple targeting capabilities to the newer more advanced ships. There might also be multiple HUD modes, Dogfight - the slickest of HUDs with little clutter to obscure your vision, but lots of target pointers and targeting information. Targeting other fighters, Intercept - targeting bombers and cap-ship missiles, Strike - which should allow you to target cap-ships and their points of interest (turrets, engines).

Vampire Wild Weasel - The Wild Weasels HUD should be the most complex of the three configurations being able to target multiple turrets as well as enemy ships, missiles, cap-ships, and separate points of interest on cap-ships.. The Weasels should have two HUD modes, Wild Weasel - targeting radar emitting sources, and Attack - targeting everything.

Panther Fighter - The Fighters HUD should have all of the elements of the previous Wing Commanders with maybe adding multiple targeting capabilities to the newer more advanced ships. There might also be multiple HUD modes, Dogfight - the slickest of HUDs with little clutter to obscure your vision, but lots of target pointers and targeting information. Targeting other fighters, Intercept - targeting bombers and cap-ship missiles, Strike - which should allow you to target cap-ships and their points of interest (turrets, engines).

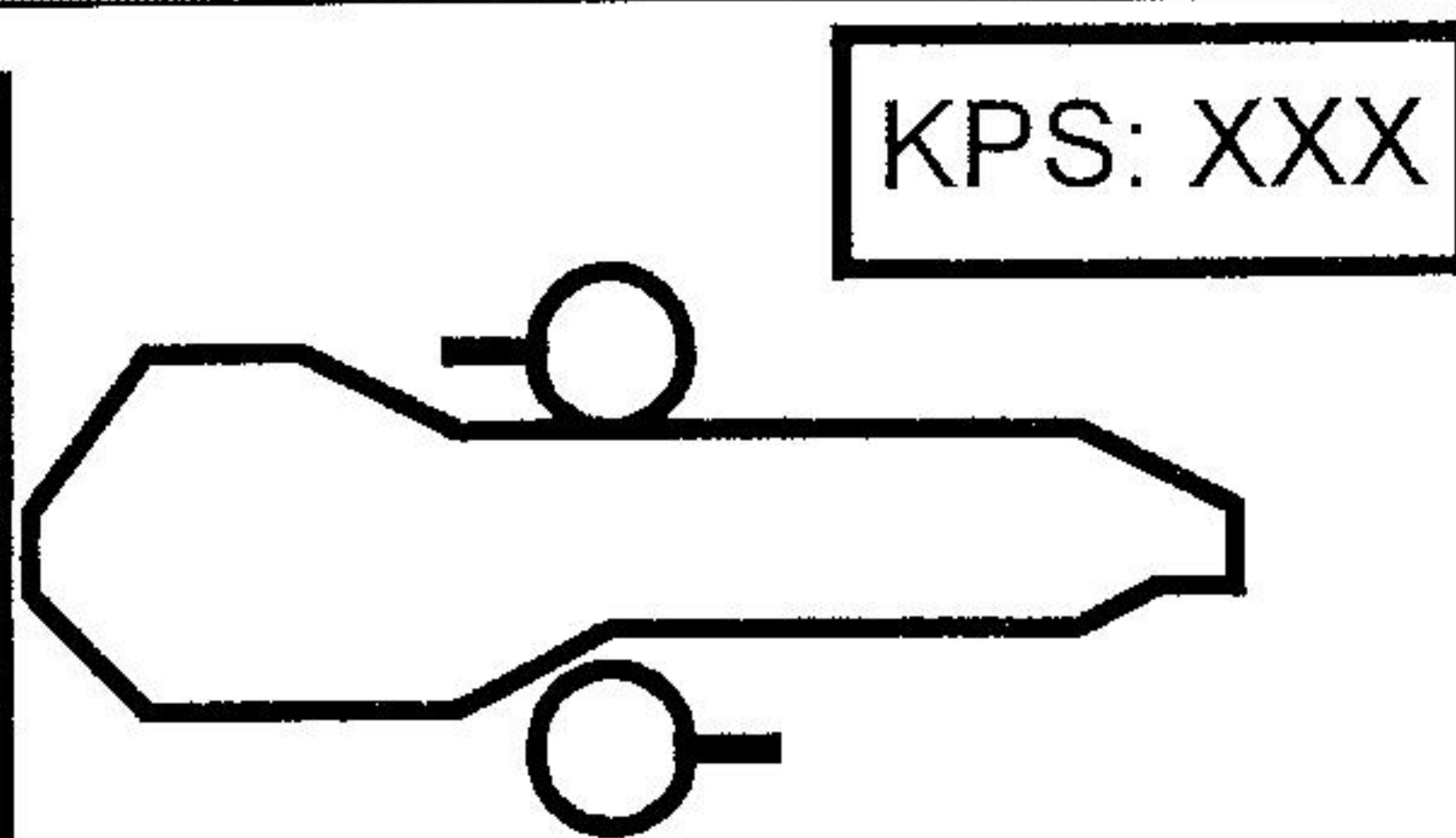
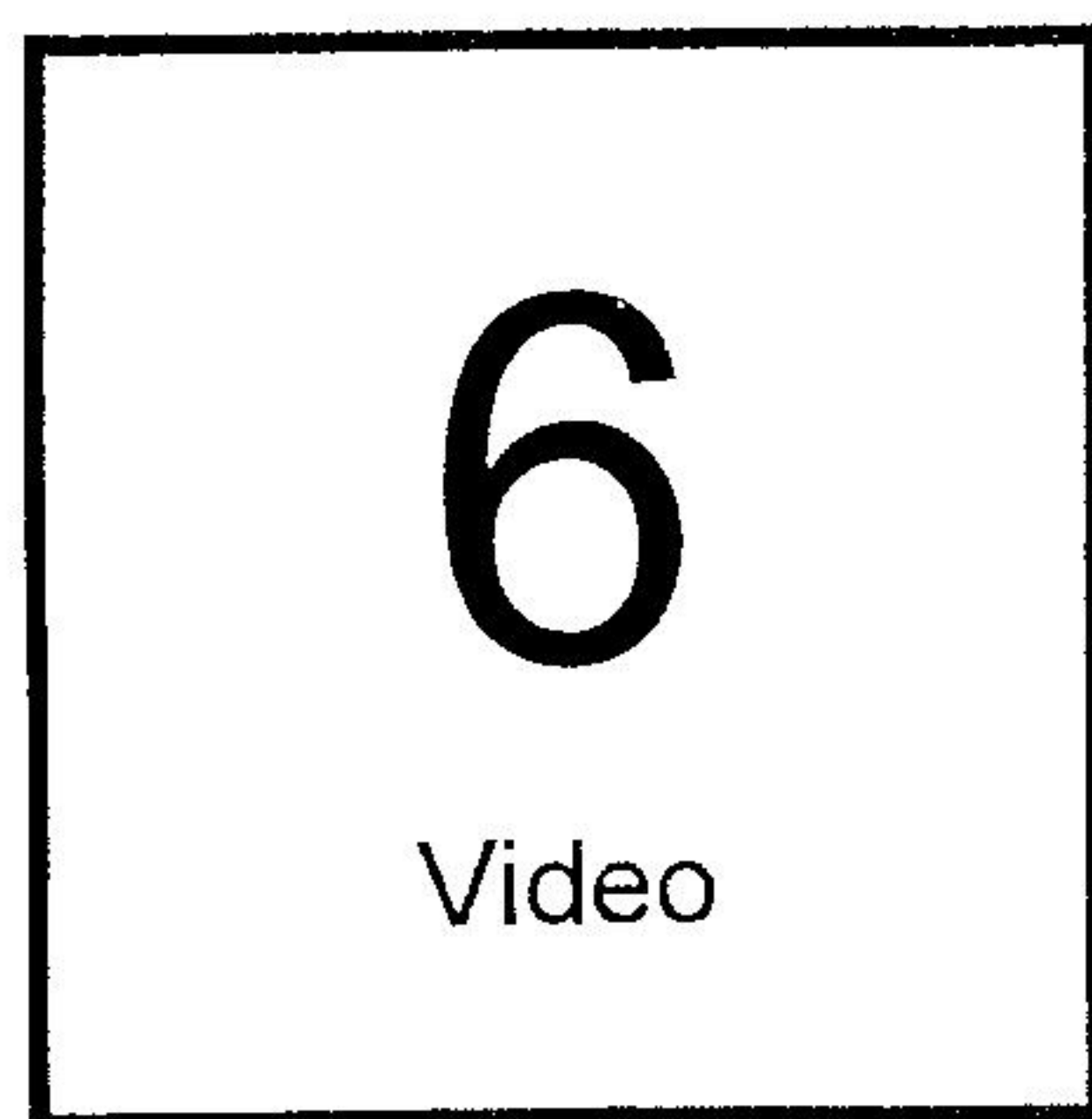
Piranha Fighter - The Fighters HUD should have all of the elements of the previous Wing Commanders with maybe adding multiple targeting capabilities to the newer more advanced ships. There might also be multiple HUD modes, Dogfight - the slickest of HUDs with little clutter to obscure your vision, but lots of target pointers and targeting information. Targeting other fighters, Intercept - targeting bombers and cap-ship missiles, Strike - which should allow you to target cap-ships and their points of interest (turrets, engines).

Shrike Bomber - The Bombers HUD should be harder to use when dog-fighting (maybe unable to keep a 360 degree lock on faster moving targets) but has the ability to lock onto multiple cap-ships, turrets, and their vulnerable spots at once. The Bombers should have two HUD modes, Strike - best suited for bombing runs, it should only target cap-ships and their points of interest, Dogfight - which should be a watered down version of the fighters dogfight mode, targeting only fighters and other bombers.

Shrike Wild Weasel - The Wild Weasels HUD should be the most complex of the three configurations being able to target multiple turrets as well as enemy ships, missiles, cap-ships, and separate points of interest on cap-ships.. The Weasels should have two HUD modes, Wild Weasel - targeting radar emitting sources, and Attack - targeting everything.

Devastator Bomber - The Bombers HUD should be harder to use when dog-fighting (maybe unable to keep a 360 degree lock on faster moving targets) but has the ability to lock onto multiple cap-ships, turrets, and their vulnerable spots at once. The Bombers should have two HUD modes, Strike - best suited for bombing runs, it should only target cap-ships and their points of interest, Dogfight - which should be a watered down version of the fighters dogfight mode, targeting only fighters and other bombers.

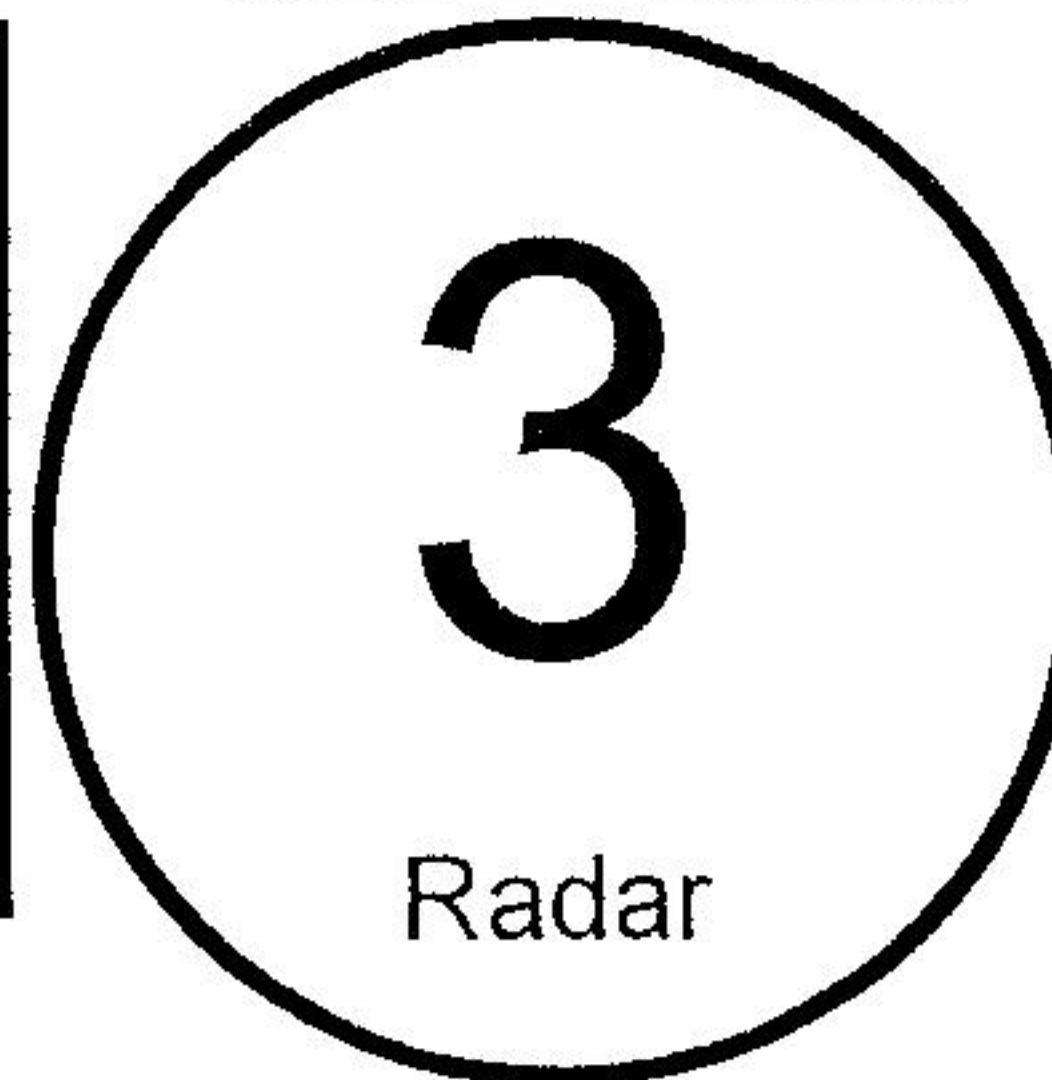
Devastator



KPS: XXX

L
O
C
K

ST

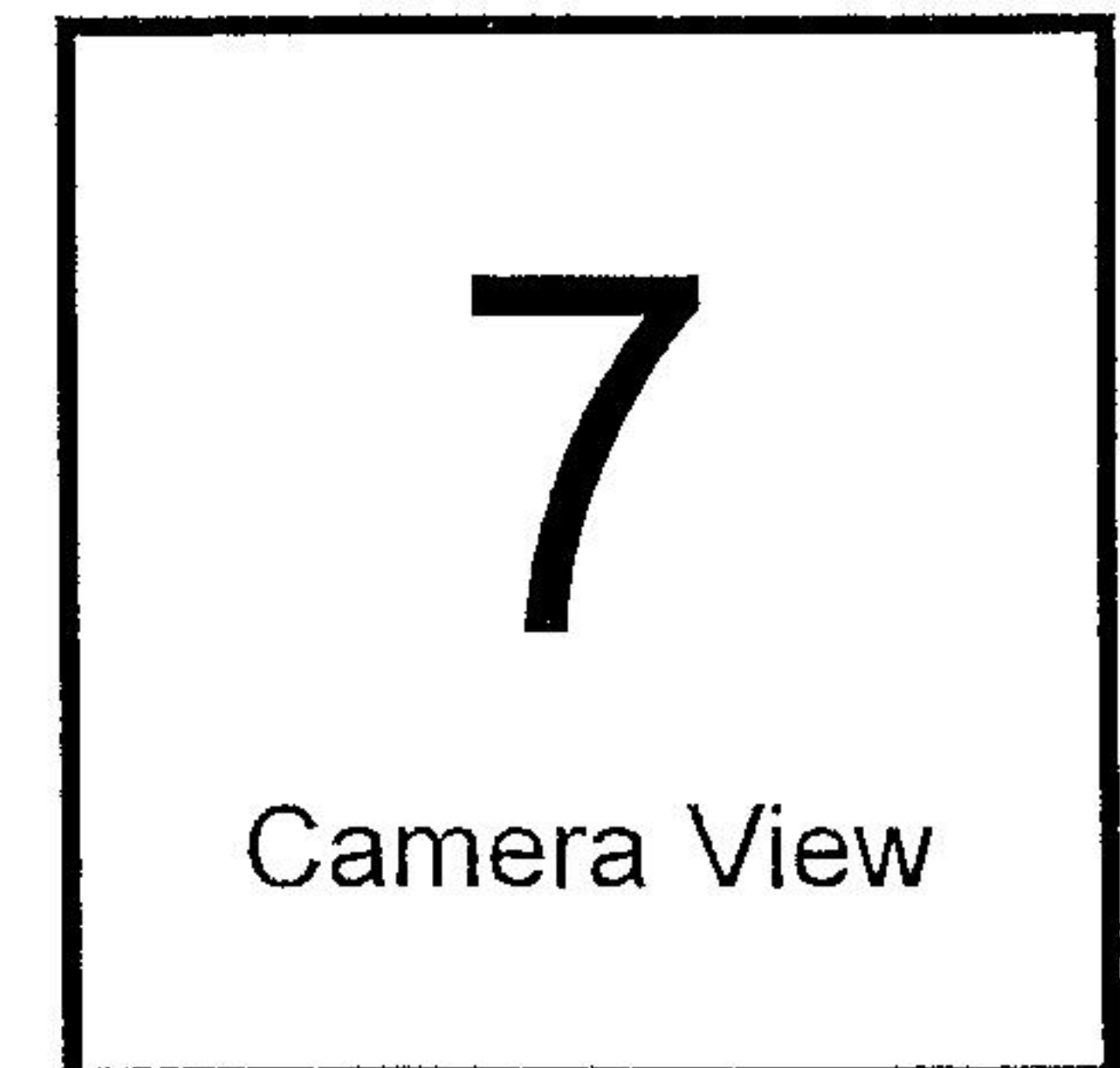
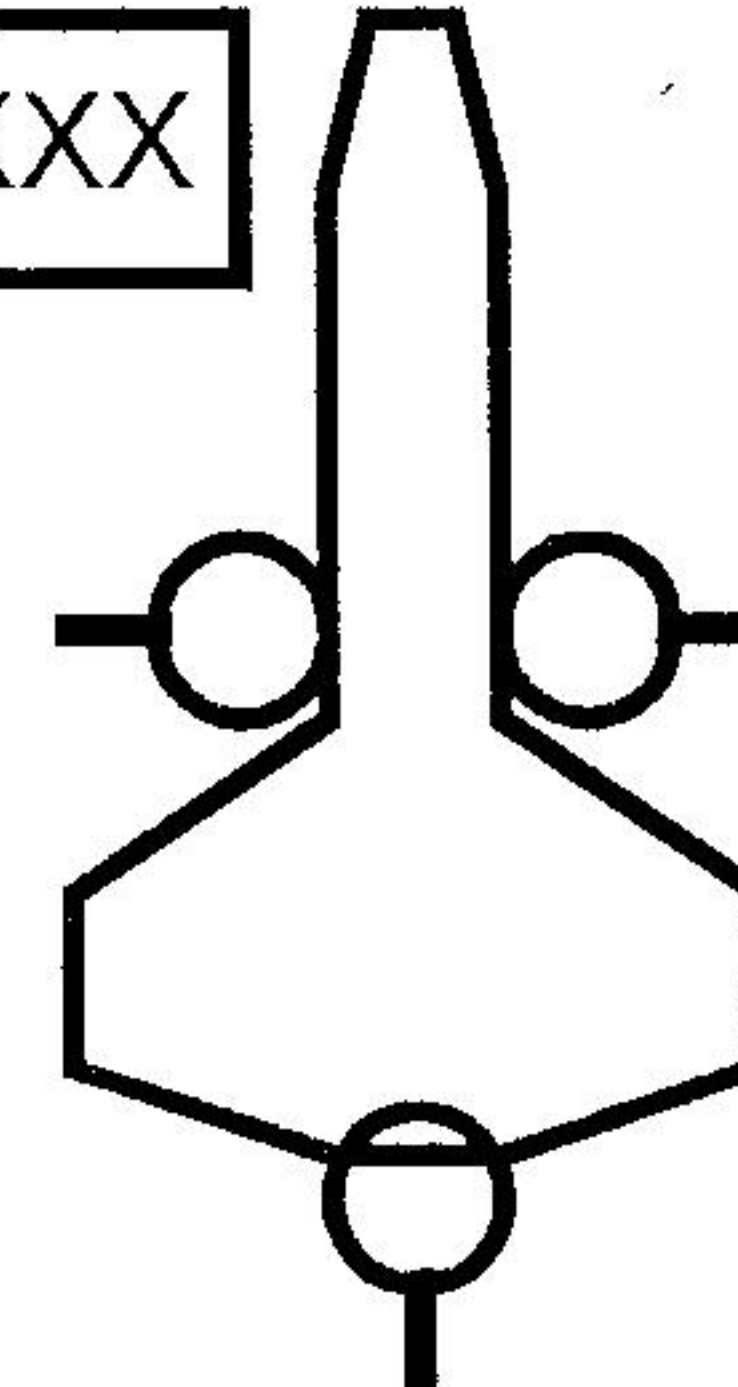


AUTO

L
O
C
K

ET

SET: XXX

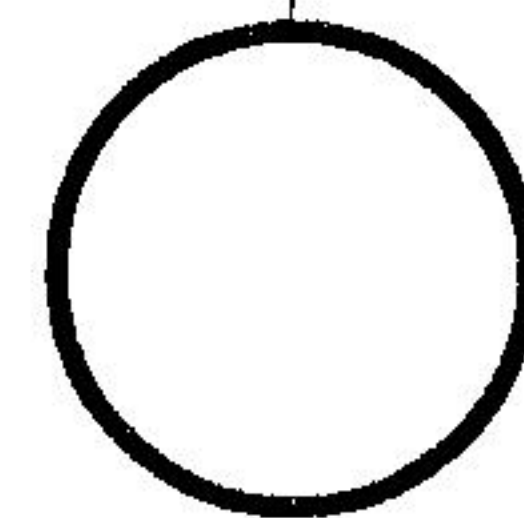


MESSAGE PLAQUE:
MANIAC: Chalk up another for the Maniac!
STILETTO: The aliens are not here. Let's keep moving!

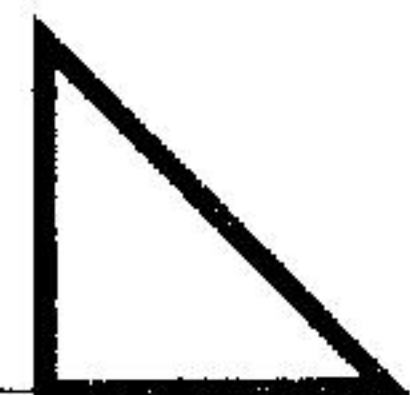
Off-Screen
Target Indicator

Reticle

EJECT



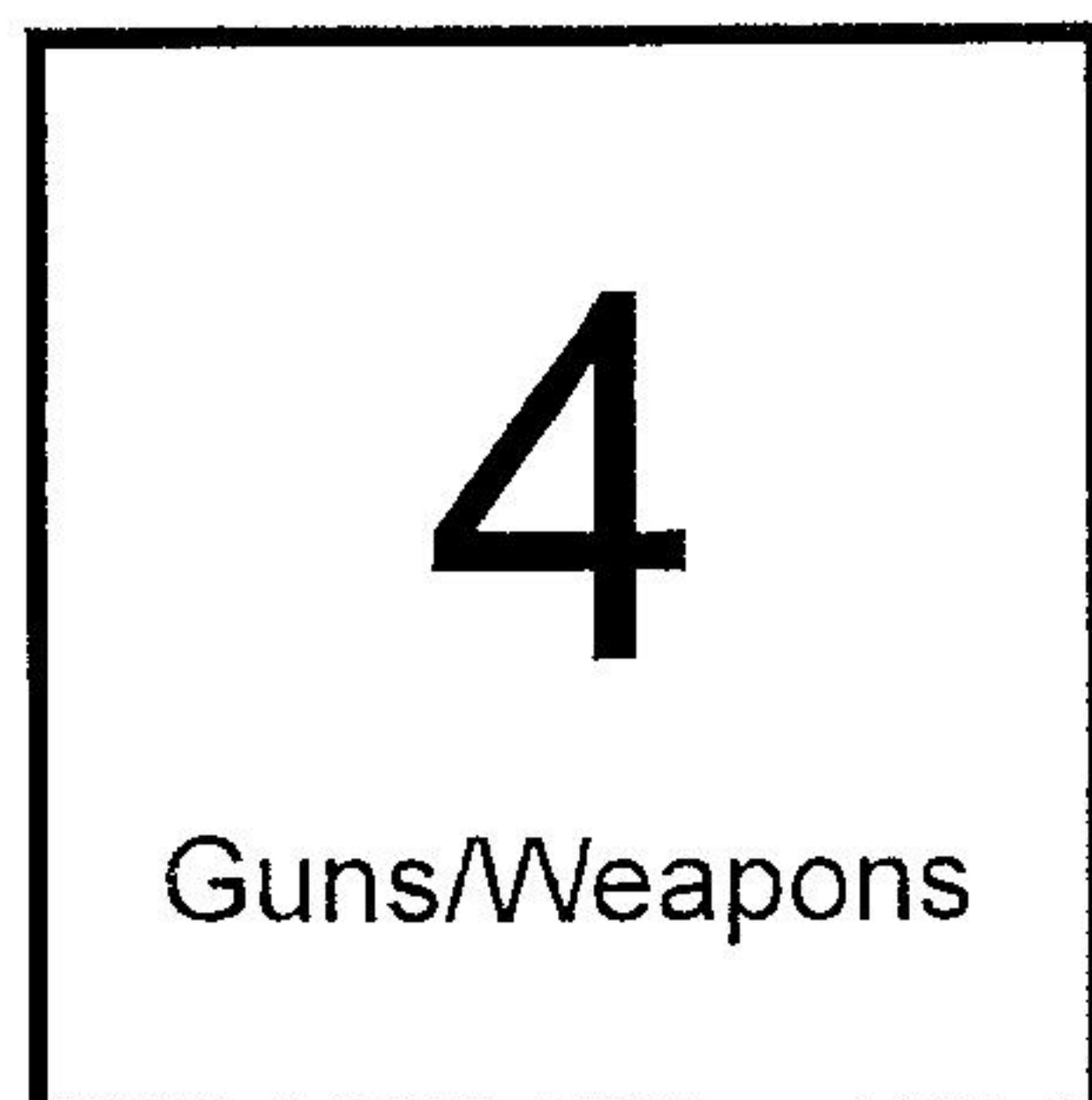
EJECT



ITTS Circle



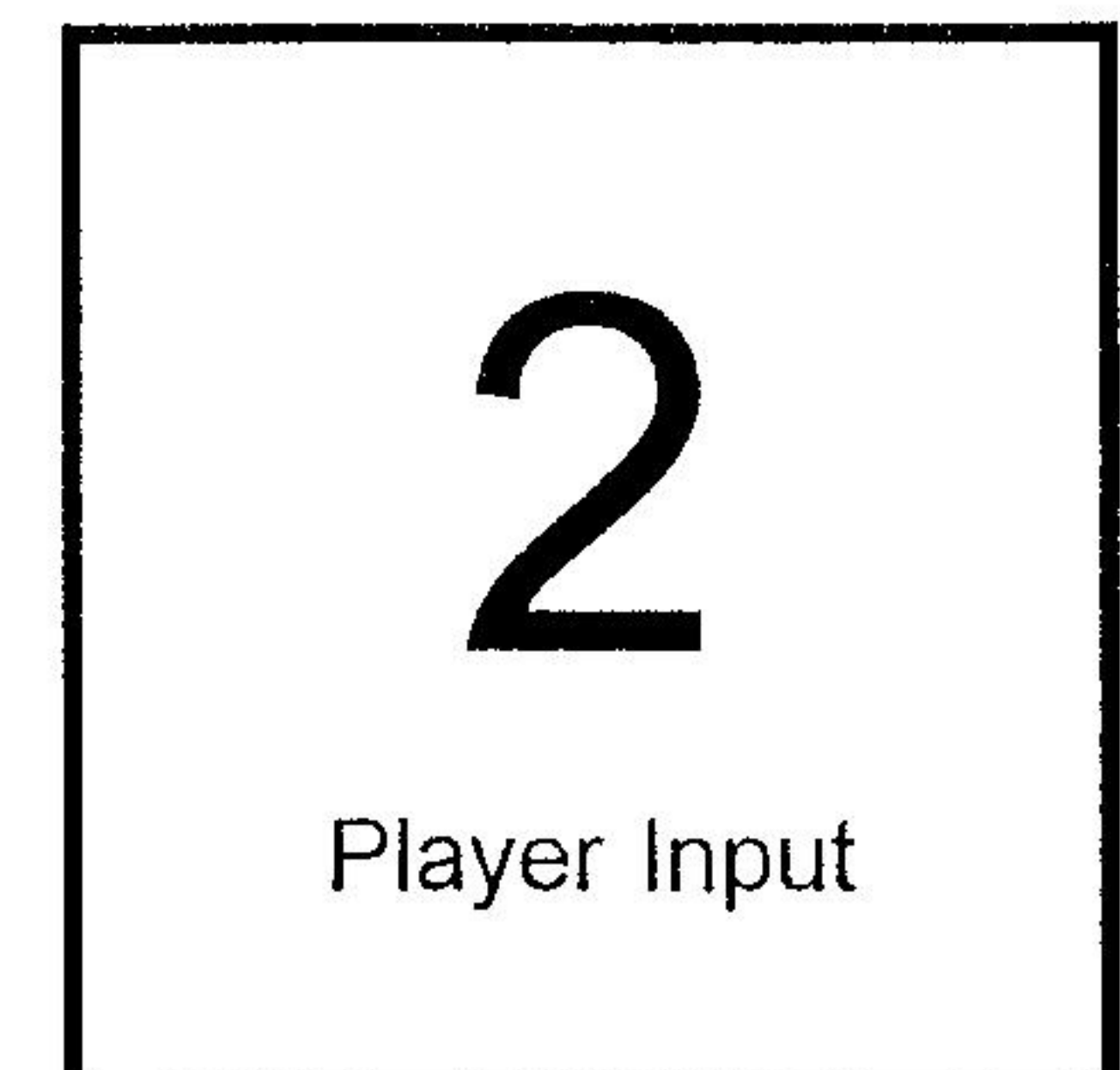
Nav Point
Indicator
(should be a
thin Plus sign)



GUN POWER

TIMER: XX:XX:XX

FUEL



Panther

6

Video

AUTO

_ placed ON the cockpit frame
or at top of screen

MESSAGE PLAQUE:

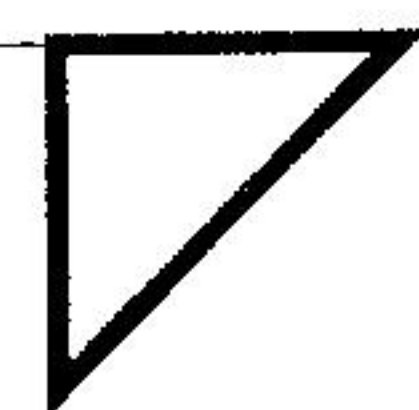
MANIAC: Chalk up another for the Maniac!

STILETTO: The aliens are not here. Let's keep moving!

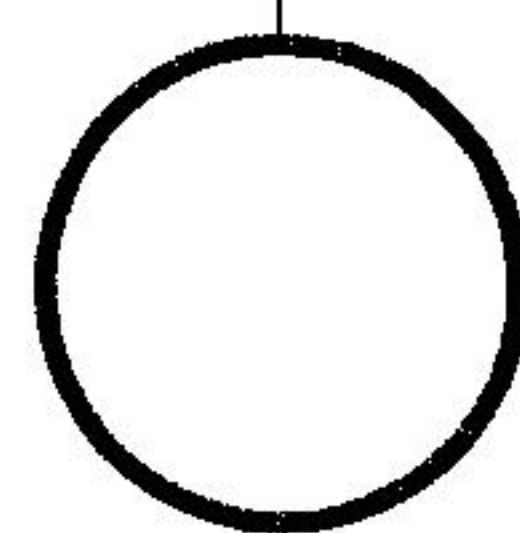
7

Camera View

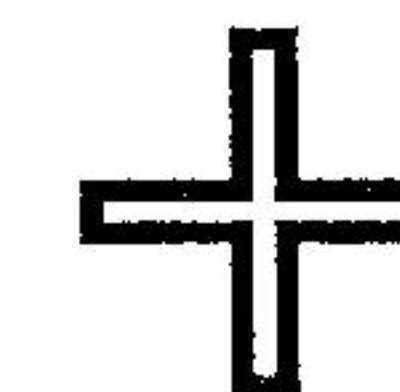
Off-Screen
Target Indicator



Reticle



ITTS Circle



Nav Point
Indicator
(should be a
thin Plus sign)

2

Player Input

KPS: XXX

LOCK

EJECT

LOCK

SET: XXX

TIMER:
XX:XX:XX

ST

ET

F
U
E
L

G
U
N
P
W
R

1

Player Armor/Shields

3

Radar

5

Target Armor/Shields

4

Guns/Weapons

Piranna

EJECT

_ placed ON the cockpit frame
or at top of screen

6

Video

MESSAGE PLAQUE:

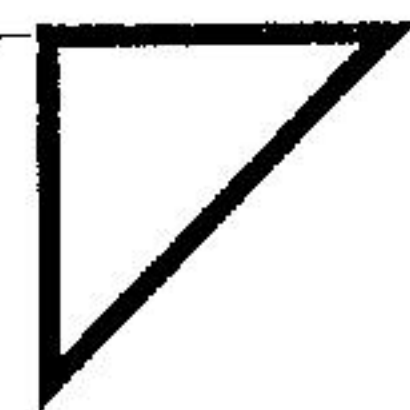
MANIAC: Chalk up another for the Maniac!

STILETTO: The aliens are not here. Let's keep moving!

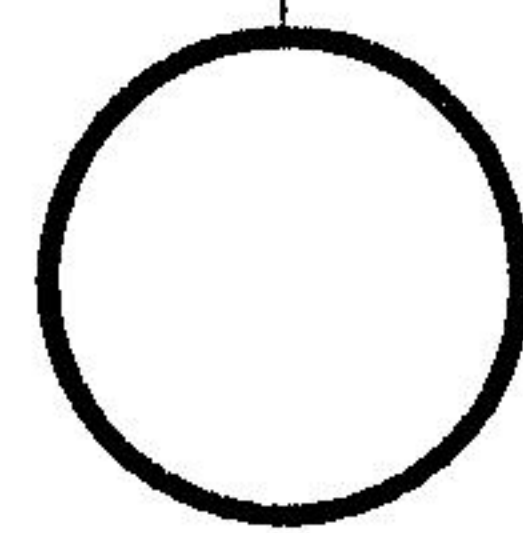
7

Camera View

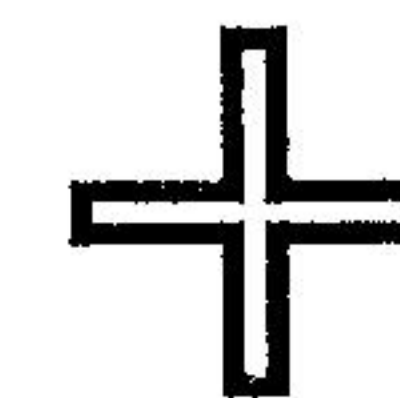
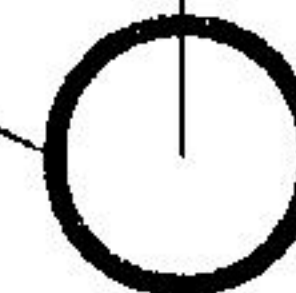
Off-Screen
Target Indicator



Reticle



ITTS Circle



Nav Point
Indicator
(should be a
thin Plus sign)

KPS: XXX

LOCK

AUTO

LOCK

SET: XXX

1

Player Armor/Shields

2

Player Input

FUEL

ST

3

Radar

ET

GUN
PWR

4

Guns/Weapons

5

Target Armor/Shields

TIMER: XX:XX:XX

Pirahna

6

Video

MESSAGE PLAQUE:
MANIAC: Chalk up another for the Maniac!
STILETTO: The aliens are not here. Let's keep moving!

7

Camera View

Off-Screen
Target Indicator

EJECT

placed ON the cockpit frame
or at top of screen

Reticle

ITTS Circle

Nav Point
Indicator
(should be a
thin Plus sign)

1

Player Armor/Shields

2

Player Input

F
U
E
L

ST

3

Radar

ET

G
U
N
P
W
R

4

Guns/Weapons

5

Target Armor/Shields

KPS: XXX

LOCK

AUTO

LOCK

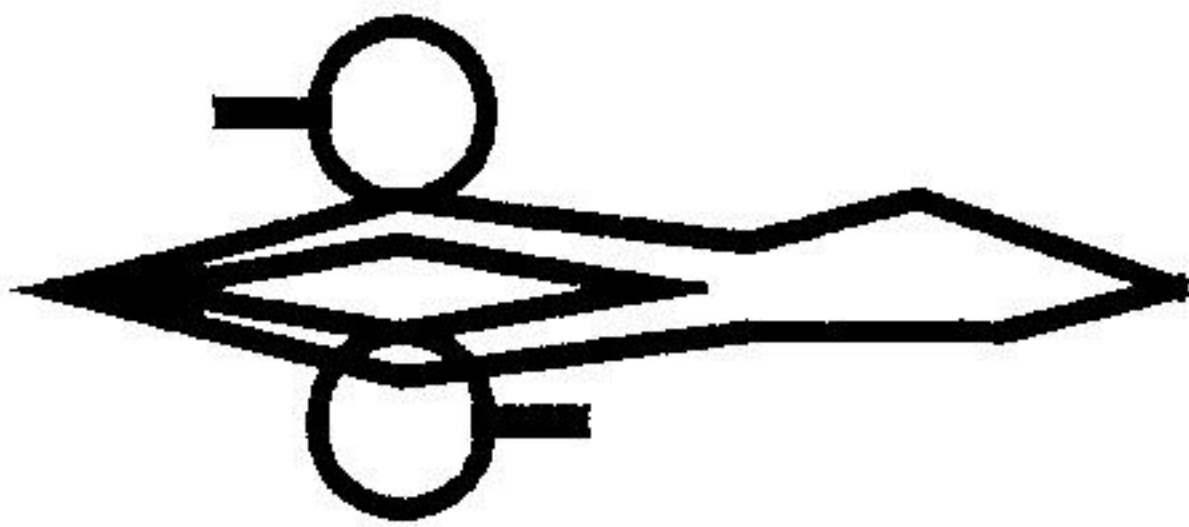
SET: XXX

TIMER: XX:XX:XX

Strike

6

Video



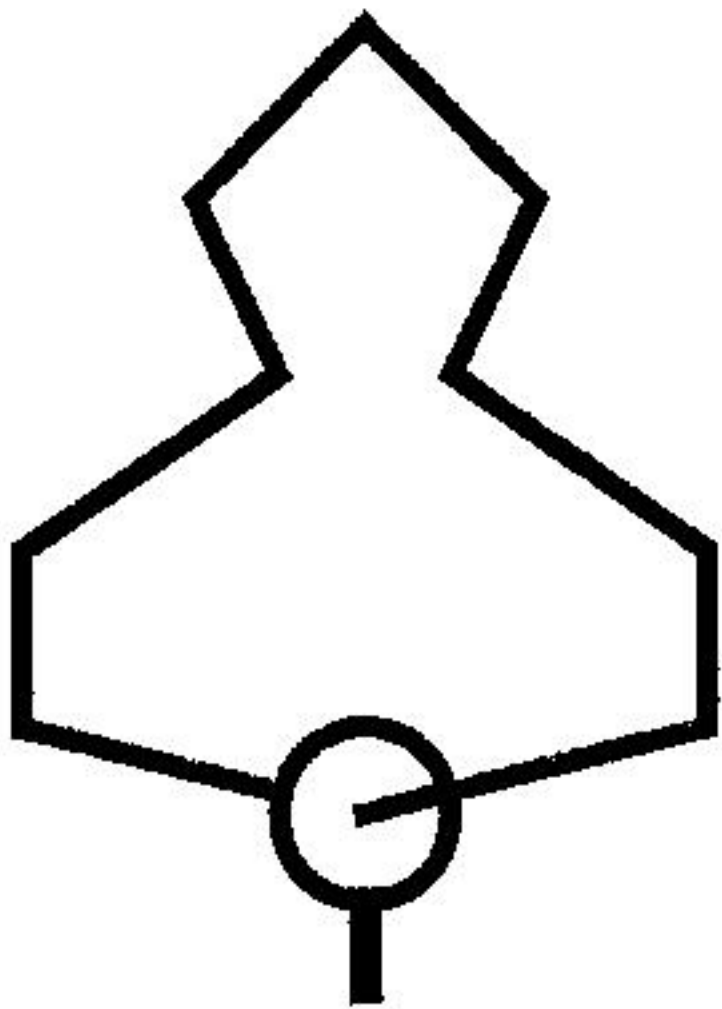
3

Radar

ST

ET

AUTO



7

Camera View

MESSAGE PLAQUE:
MANIAC: Chalk up another for the Maniac!
STILETTO: The aliens are not here. Let's keep moving!

Off-Screen
Target Indicator

Reticle

ITTS Circle

Nav Point
Indicator
(should be a
thin Plus sign)

4

Guns/Weapons

2

Player Input

1

Player Armor/Shields

5

Target Armor/Shields

GUN POWER

LOCK	EJECT	LOCK
KPS: XXX	TIMER: XX:XX:XX	SET: XXX

FUEL

Tiger shark

6

Video

TIMER: XX:XX:XX

AUTO

_ placed ON the cockpit frame
or at top of screen

MESSAGE PLAQUE:

MANIAC: Chalk up another for the Maniac!

STILETTO: The aliens are not here. Let's keep moving!

7

Camera View

Nav Point
Indicator
(should be a
thin Plus sign)

Reticle

EJECT

EJECT

ITTS Circle



Off-Screen
Target Indicator

4

Guns/Weapons

KPS: XXX

2

Player Input

SET: XXX

5

Target Armor/Shields

1

Player Armor/Shields

G
U
N
P
W
R

ST

LOCK

ET

3

Radar

F
U
E
L

Tiger shark

6

Video

TIMER: XXX

10000

_ placed ON
the cockpit frame
or at top of screen

7

Camera View

MESSAGE PLAQUE:

MANIAC: Chalk up another for the Maniac!

STILETTO: The aliens are not here. Let's keep moving!

Nav Point
Indicator
(should be a
thin Plus sign)

Reticle

EJECT

EJECT

ITTS Circle



Off-Screen
Target Indicator



4

Guns/Weapons

KPS: XXX

2

Player Input

SET: XXX

5

Target Armor/Shields

1

Player Armor/Shields

G
U
N
P
W
R

ST

LOCK

ET

F
U
E
L

3

Radar

Vampire

6

Video

MESSAGE PLAQUE:

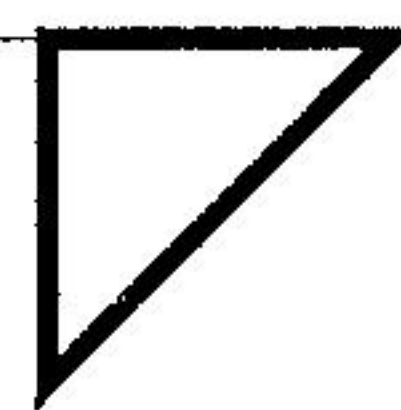
MANIAC: Chalk up another for the Maniac!

STILETTO: The aliens are not here. Let's keep moving!

7

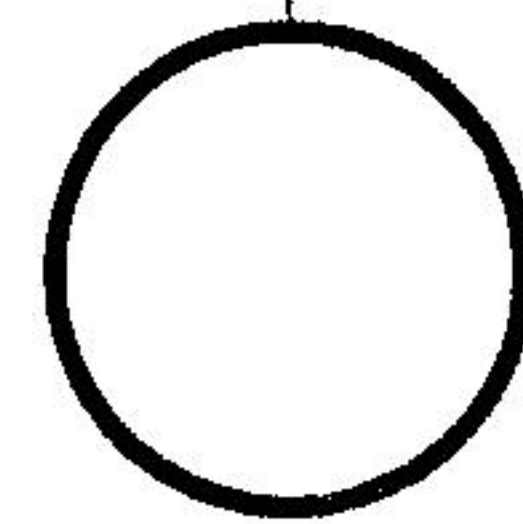
Camera View

Off-Screen
Target Indicator

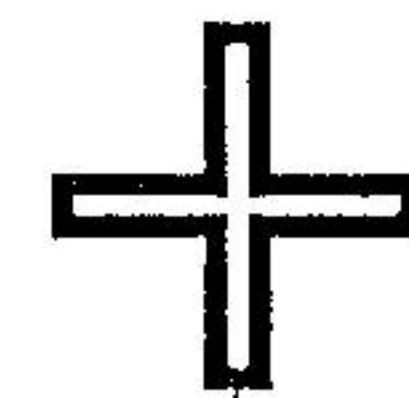


_ placed ON the cockpit frame
or at top of screen

Reticle



ITTS Circle



Nav Point
Indicator
(should be a
thin Plus sign)

KPS: XXX

EJECT

ST

AUTO

ET

EJECT

SET: XXX

2

Player Input

1

Player Armor/Shields

F
U
E
L

L
O
C
K

3

Radar

L
O
C
K

G
U
N
P
W
R

5

Target Armor/Shields

4

Guns/Weapons

TIMER: XX:XX:XX

Vampire

6

Video

7

Camera View

MESSAGE PLAQUE:

MANIAC: Chalk up another for the Maniac!

STILETTO: The aliens are not here. Let's keep moving!

AUTO

AUTO

_ placed ON the cockpit frame

Off-Screen
Target Indicator

Reticle

ITTS Circle

Nav Point
Indicator
(should be a
thin Plus sign)

KPS: XXX

EJECT

ST

TIMER: XX:XX:XX

ET

EJECT

SET: XXX

2

Player Input

1

Player Armor/Shields

FUEL

LOCK

3

Radar

LOCK

GUN
PWR

5

Target Armor/Shields

4

Guns/Weapons

Wasp

6

Video

MESSAGE PLAQUE:

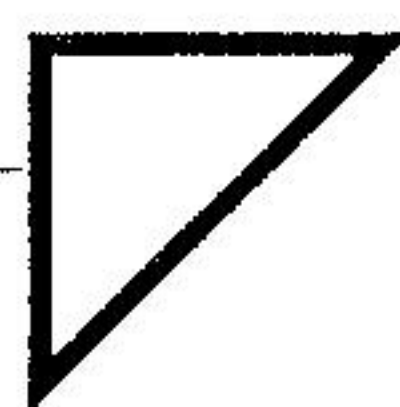
MANIAC: Chalk up another for the Maniac!

STILETTO: The aliens are not here. Let's keep moving!

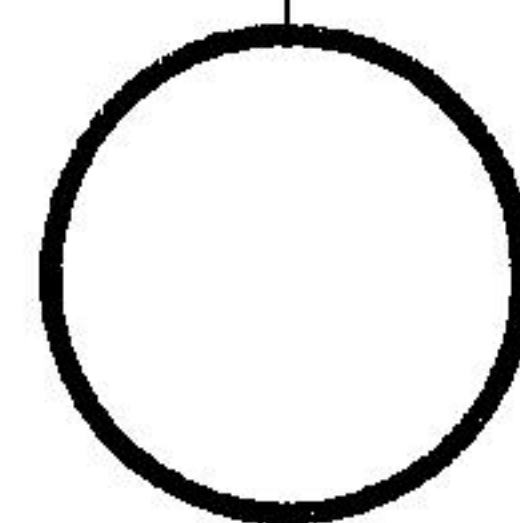
7

Camera View

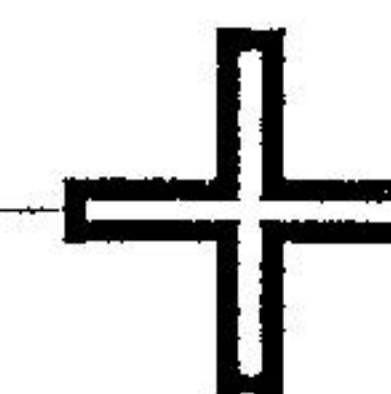
Off-Screen
Target Indicator



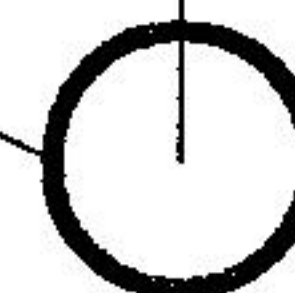
Reticle



Nav Point
Indicator
(should be a
thin Plus sign)



ITTS Circle



2

Player Input

KPS: XXX

LOCK

1

Player Armor/Shields

ST

3

Radar

ET

EJECT

AUTO

TIMER: XX:XX:XX

EJECT

G
U
N
P
W
R

F
U
E
L

4

Guns/Weapons

LOCK

SET: XXX

5

Target Armor/Shields

- Transports
- **Second Ace** **E4** (launched when carrier is attacked by player)

Series F

- SS Fighter
- MR Fighter
- Kilrathi Corvette
- Fighter Clusters

Series G

- Shield Killer
- Ray
- Moray
- Cargo Containers
- Fighter Destroyers
- Skate
- Manta
- Ship Killer, damaged (G3)
- **Third AceG4** (launched from damaged ship killer)

Series H

- Interceptor
- Shield Killer
- Fighter Cluster
- Carrier
- Ship Killer
- Minelayers
- Fighter
- Bomber
- **Fourth Ace** **H3** (player in fighter running patrol. Player will see the Ship killer, and Ace will attack - he may show back up again in the next mission if player doesn't destroy him.)

Series I

- Dreadnought fleet (1 Dreadnought, 1-2 Carrier, 2-3 Cruiser, 3-5 Destroyer, 0-2-3 Fighter Destroyer (corvette), 5-9 Transport)

If you've already done this, thanks!!
bjc