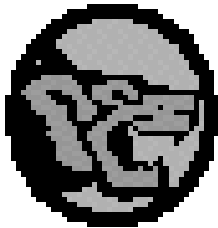


*KA-50 HOKUM*

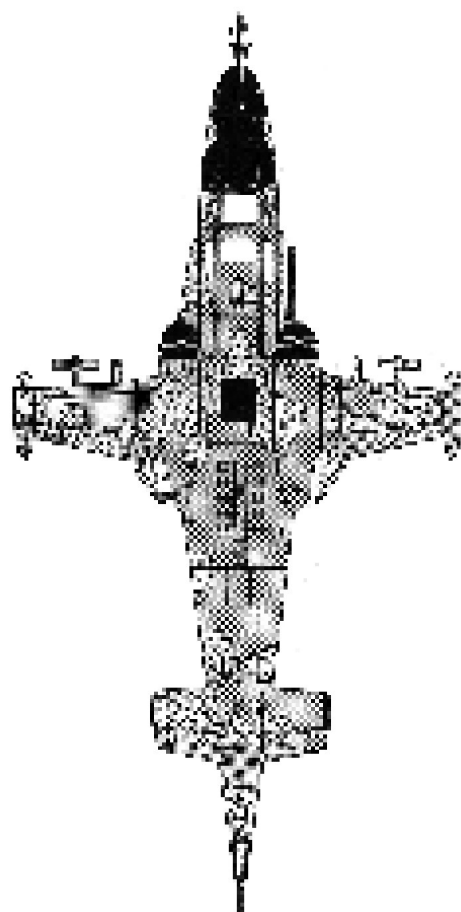
VIRGIN INTERACTIVE  
ENTERTAINMENT PRESENTS



# *KA-50 HOKUM*

*The leading edge in helicopter combat simulators*





 *KA-50 НОКУМ*

# KA-50 HOKUM

## VIRGIN INTERACTIVE ENTERTAINMENT PRESENTS

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**WELCOME** to Ka-50 Hokum, the leading edge in helicopter combat simulators. If you have flown only aeroplane simulations before, it's important to be aware that flying a helicopter is a different kettle of cliches - and arguably a more rewarding experience to boot. Even if you have flown other helicopter simulators, prepare yourself for the difference: Ka-50 Hokum is the most realistic to date.

If you should find either the program or the documentation unsatisfactory in any way, don't hesitate to drop us a line detailing in full the reasons for your dissatisfaction. This will help us to avoid repeating any similar hiccups in the future. Opinions, queries and complaints should be sent to The Project Manager, Ka-50 Hokum, Virgin Interactive Entertainment, 338A Ladbroke Grove, London W10 5AH.



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## I N T R O D U C T I O N : P I R A C Y O N T H E H I G H S E A S !

It sounds like something out of the history books or a Hollywood film, but the truth of the matter is, pirates still exist and are causing chaos in the Southern Hemisphere. The sailing ships have been replaced by speedboats, and the hooks, peg-legs, parrots and cutlasses discarded in favour of machine guns and the latest military hardware, but these pirates are no less ruthless and cunning.

Every day in the South China Sea up to 200 ships slow to as little as 15 knots to pass through sea-lanes less than a mile wide ... leaving them open to attack from pirates. Valuable cargo is always stolen and often sold at neighbouring ports (with so many buyers in search of cheap product, it's easy to overlook its origins); sometimes lives and whole ships are taken. And when people start to notice, the ships are abandoned and sunk.

This is a serious issue prompting seminars devoted to the subject (such as The Piracy In South East Asia Conference, held in Koalalumpa, Malaysia on July 28-29 1992). To make matters more awkward, the sea in South East Asia is divided into many jurisdictions with boundaries that cannot be crossed by the resident law enforcement.

Understandably, not everyone is happy about this arrangement. Some corporations are prepared to spend vast sums of money employing people to protect their investment. People like you.

As commander of a mercenary group, a ship and a fleet of eight helicopters, it's your responsibility to patrol an area approximately 75,000 km square (lying at a longitude of 3 degrees North and a latitude of 160 degrees East, in case you were wondering), and suppress or (preferably) remove the pirate forces dominating the Indonesian-owned Anambus Islands.

Let the on-board computer plan and execute a campaign of action, leaving you free to fly the missions of your choice. As your experience and confidence grows, you can take on greater responsibilities, and ultimately mastermind a movement to eradicate the pirate threat once and for all.

# KA-50 HOKUM

## H O K U M   I N S T A L L A T I O N

1. Switch to the floppy drive you are using to install the game (usually A:) by typing A: followed by ENTER
2. Type INSTALL followed by the ENTER key when prompted to do so.
3. Select the hard disk that you would like to install the game to (usually C:) by pressing the ENTER key on the one you would like, select with the up and down cursor keys.
4. Now type in the directory you would like to install to (KA50 is the default directory) followed by the ENTER key.
5. The game will now install, please change the disks when prompted to do so.

## A N D   A W A Y   W E   G O . . .

Once Ka-50 Hokum has loaded, the first thing you will see is the Title Screen along with three options: SINGLE PLAYER, TWO PLAYER and CANCEL.

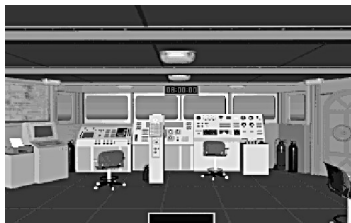
- Use the joystick, mouse or arrow (cursor) keys to move the arrow pointer.
- Press a joystick firebutton, the left-hand mouse button or the Enter key to select a function.

Select ONE PLAYER to begin play. Select TWO PLAYER for two-player, head-to-head helicopter combat via a modem or null modem cable. Select CANCEL to return to DOS.



# KA-50 HOKUM

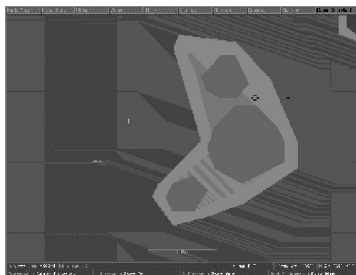
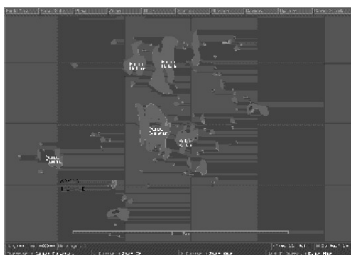
You will then be presented with a view from your ship's bridge.



All functions are selected with an arrow pointer. To show that a function can be selected, the arrow pointer changes to a cross.

Select the Strategic Map on the far left-hand side of the bridge.

Select the Game Start option (alternatively, press the G key): the simulation is underway, as indicated by Game Started in the top right-hand corner of the screen. A mission will automatically be generated (the text will scroll into view at the bottom of the screen) and, after a short while, the appropriate helicopter will be launched from your ship (the green one in the top right-hand corner of the map). Now you can sit back and watch the helicopter's progress from the map (position the cross over your ship) ...



- Press the left-hand mouse button to zoom in on the area around the cross.

Or, better still, from inside the active helicopter...

- Press and hold a Ctrl key then press the first letter corresponding to the active helicopter's name, ie: 'C' for Cobra, 'W' for Werewolf (Hokum), 'L' for Lynx and 'H' for Hip.

Alternatively, you can take control of the helicopter - but first turn off the autopilot.

- Press the A key to turn off the autopilot.

The helicopter is now under your control - but are you in control of the helicopter?



# KA-50 HOKUM

## HOW TO FLY

Apart from the obvious physical distinctions, what makes a helicopter so different from a 'plane'? Helicopters have no direct forward thrust, for a start, but they are far more manoeuvrable than 'planes (and more sensitive to fly); they can stop dead in the air and hover or fly sideways in seconds. You may be surprised to see how steeply helicopters can bank (some can even fly upside down). It's also possible to safely land a helicopter without a working engine.

So how does helicopter flight work? Here's a practical example you can try for yourself by selecting a helicopter to fly from the ship. For this example, choose the Cobra and don't bother altering its armament.

- Select the door on the right-hand side of the ship's bridge to access the lower deck.



- Select the door on the left-hand side of the lower deck to access the hangar.

- Select ACCEPT to choose the Cobra and enter the armoury.



- Select OK to accept the default armament.

You should now be sat on the upper deck of the ship, in the seat of the Cobra.

- Press the E key to power up the engine - you can hear the starter motors making that distinctive chugging sound.





# KA-50 HOKUM

- Press the V key for an external view of the helicopter: you can see that the rotor blades are slowly rotating, even though the rotor mechanism itself has not actually been engaged yet. Press the V key again to return to the cockpit view.
- Press the R key to engage the rotor mechanism (ideally when the engine power is at approximately 20-30 per cent of its capacity - a cold start can damage the gear box). Press the V key again and watch the blades rotate faster and faster.



## IT'S TIME TO CLIMB

So, the rotor blades are spinning (who could ignore that characteristic whine?), but the helicopter isn't rising yet. The rate of the helicopter's climb is determined by the 'collective' - the angle of each rotor blade's surface (effectively a rotating wing) providing resistance as it moves through the air.

- Press the 8 key to increase the collective to 80 per cent. The helicopter will lift off the ship.



## HORIZONTAL MOTION

There will always be a rotor blade moving towards the front of the helicopter, and another moving towards the rear of the helicopter. The blade that is moving 'forwards' is, understandably, called the advancing blade, and the blade moving 'backwards' is the retreating blade.

You may have realised at this point that the helicopter should in fact be spinning around in circles - so why doesn't it? The reason is the use of a tail rotor to create an equal and opposite reaction and so stabilise the helicopter. (Better still, a second set of main rotor blades rotating in the opposite direction could be used - as they are on the Werewolf.)

The helicopter's rotors moving at a constant rate generate lift, which is fine for vertical movement. But how do you increase the helicopter's forward speed?

**INCREASING FORWARD SPEED** By tipping the helicopter's nose forwards, the lift generated by the rotating blades is redirected to the rear of the helicopter - and the helicopter is thrust forwards.

**REDUCING FORWARD SPEED** Guess what? To reduce the helicopter's forward speed, pull its nose up - the increase in surface area provided by the bottom of the helicopter generates drag. The helicopter will also start to climb, so reduce the collective to, say, 60 per cent then level out before increasing the collective to 80 per cent again.

The drag factor for the helicopter is determined by its size and weight (bearing in mind the weapon load) which understandably sets the craft's maximum speed. Were you to launch a missile, you'd fly a little bit faster. For the purpose of practising simulated helicopter flight in Ka-50 Hokum, fly with a full load.



## FLYING BACKWARDS

With a significant increase in drag and reduction of forward speed, the helicopter will start to fly backwards (as indicated by a negative value on the Air Speed Indicator). Pull the helicopter's nose up sharply to experience this effect.

## HOVERING

To hover, bring the collective way down - quickly, as low as it will go - and raise the helicopter's nose slightly. Without any lift (in fact, probably more drag from the rotor blades than anything) the helicopter will move in a smooth arc to come to a hover. Quickly increase the collective to stop the helicopter falling.

Alternatively, take advantage of the auto-hover function.

- Press the H key to toggle the auto-hover on ('AUTOHOVER' is displayed on the Helmet-Mounted Display to show that the function is active) or off.

**ROTATING THE HELICOPTER** When the helicopter is hovering at a speed of around 10 kts or less, increasing or decreasing the speed of the tail rotor blades (or the Hokum's second set of rotor blades) results in the helicopter rotating to the right or left.

- Press the > key to increase the speed of the tail rotor blades (or the Hokum's second set of rotor blades).
- Press the < key to decrease the speed of the tail rotor blades (or the Hokum's second set of rotor blades).

**FLYING SIDEWAYS** Move the cyclic to the left or right then increase or decrease the speed of the tail rotor blades (or the Hokum's second set of rotor blades) to skid or 'sideslip' to the left or right. For example, to skid to the left, move the cyclic to the left then increase the speed of the tail rotor blades.

**BANKING** There are times when it's wise to keep the ground in view when turning. First, dip the helicopter's nose so the terrain is visible.

To bank to the right and climb with the ground in view:

- Push and hold the cyclic to the right.
- Press and hold the > key to increase the speed of the tail rotor blades (or the Hokum's second set of rotor blades).

Decreasing the speed of the tail rotor blades will make the helicopter descend while banking to the right.

To bank to the left and climb with the ground in view:

- Push and hold the cyclic to the left.
- Press and hold the < key to decrease the speed of the tail rotor blades.

Increasing the speed of the tail rotor blades will make the helicopter descend while banking to the left.

## FLYING WITHOUT AN ENGINE

So your engine's been knocked out by enemy forces - don't despair: a helicopter won't plummet to the ground (well, not unless the rest of the helicopter is in a bad way). By way of example, climb to, say, 600 feet and level out then cut the engine, disengage the rotors, and drop the collective to a minimum as quickly as possible (the flattened blades will provide a greater resistance to the air and keep rotating at speed sufficient to keep the helicopter aloft; if the blades stop rotating, you can kiss good-bye to the helicopter - and your life). As the rotor blades cut the air they auto-rotate and the helicopter will sink slowly and safely to the ground - provided at the last minute you pull up the helicopter's nose.

To increase your forward speed, push the cyclic forward to bring the helicopter's nose down then reduce the collective to a minimum; as the helicopter approaches the ground, level out and increase the collective to maximum to stabilise the helicopter and slow its decent.

## LANDING

The only practical advice is take it slow, be sure of your landing site, and be aware that practice makes perfect. Use the Autoland function until you feel confident enough to land a helicopter manually.

UNFORTUNATELY for all their fun, helicopters can be unpredictable. One thing is for sure though: lose your tail rotor and death is on the line. Also bear in mind that helicopters have a ceiling limit (of approximately 10,000 feet in Ka-50 Hokum) due to the diminishing density of air with an increase in altitude; the result is over-running, where the thin atmosphere provides minimal resistance to the rotor blades. With no mechanism to slow down the blades, they rotate faster, generating more lift until the engine overheats and shuts down. The blades rotate freely and - get this - the helicopter doesn't drop (in fact, the only way down for the pilot is to jump). This is almost impossible to simulate, so don't try it in Ka-50 Hokum.

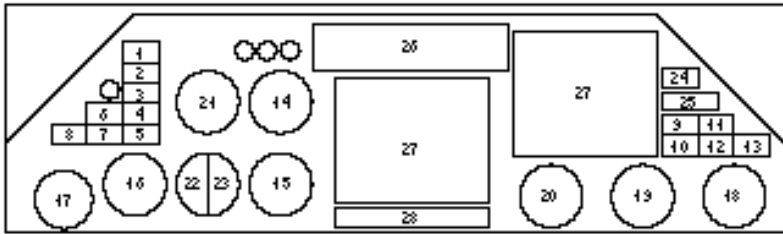
- The first successful helicopter was designed and built by Russian-born American aeronautical engineer Igor Ivanovich Sikorsky (1889-1972) in 1941. He also built and flew the first multi-engined 'plane.

# KA-50 HOKUM

## THE COCKPIT

Though there are obvious differences between each helicopter's cockpit, there are in fact many similarities. Note that the cockpit layout for each helicopter varies depending on the choice of graphic resolution.

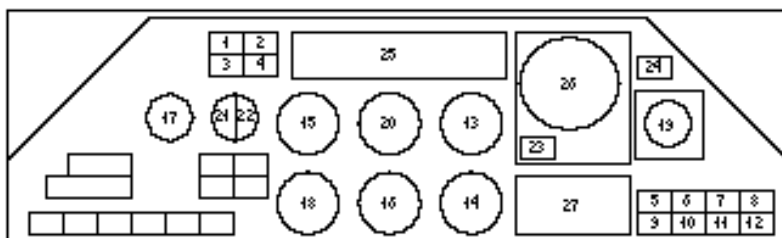
### KAMOV KA-50 WEREWOLF COCKPIT



- |                             |                             |
|-----------------------------|-----------------------------|
| 1 LOW ALTITUDE              | 16 HEADING                  |
| 2 ROTOR FAILURE             | 17 SLIP INDICATOR           |
| 3 ROTOR STALL               | 18 FUEL GAUGE               |
| 4 NAVIGATION FAILURE        | 19 ALTITUDE                 |
| 5 HMD FAILURE               | 20 TAKAN                    |
| 6 ENGINE INDICATOR          | 21 ARTIFICIAL HORIZON GAUGE |
| 7 ROTOR INDICATOR           | 22 ENGINE INDICATOR         |
| 8 WHEEL BRAKE INDICATOR     | 23 ROTOR INDICATOR          |
| 9 MFD FAILURE               | 24 PRESENT WAYPOINT         |
| 10 LOW FUEL                 | 25 RADAR DETECTION RANGE    |
| 11 HYDRAULIC FAILURE        | 26 MESSAGE BAR              |
| 12 ENGINE FAILURE           | 27 MULTI-FUNCTION DISPLAY   |
| 13 SPEED OVERRUN            | 28 WEAPON STATUS            |
| 14 AIR SPEED INDICATOR      |                             |
| 15 VERTICAL SPEED INDICATOR |                             |

# KA-50 HOKUM

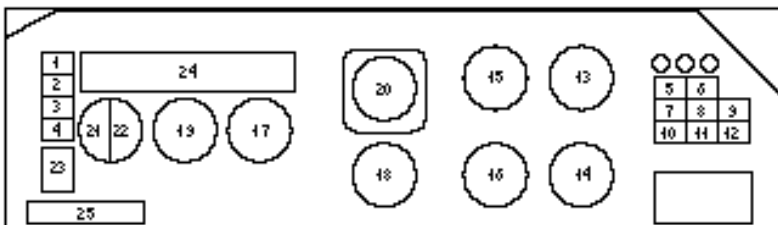
## BELL AH-1W SUPER COBRA COCKPIT



- |                             |                             |
|-----------------------------|-----------------------------|
| 1 ENGINE INDICATOR          | 15 HEADING                  |
| 2 ROTOR FAILURE             | 16 SLIP INDICATOR           |
| 3 ROTOR INDICATOR           | 17 FUEL GAUGE               |
| 4 LOW ALTITUDE              | 18 ALTITUDE                 |
| 5 LOW FUEL                  | 19 TAKAN                    |
| 6 MFD FAILURE               | 20 ARTIFICIAL HORIZON GAUGE |
| 7 HYDRAULIC FAILURE         | 21 ENGINE INDICATOR         |
| 8 ROTOR STALL               | 22 ROTOR INDICATOR          |
| 9 HMD FAILURE               | 23 PRESENT WAYPOINT         |
| 10 NAVIGATION FAILURE       | 24 RADAR DETECTION RANGE    |
| 11 ENGINE FAILURE           | 25 MESSAGE BAR              |
| 12 SPEED OVERRUN            | 26 MULTI-FUNCTION DISPLAY   |
| 13 AIR SPEED INDICATOR      | 27 WEAPON STATUS            |
| 14 VERTICAL SPEED INDICATOR |                             |

# KA-50 HOKUM

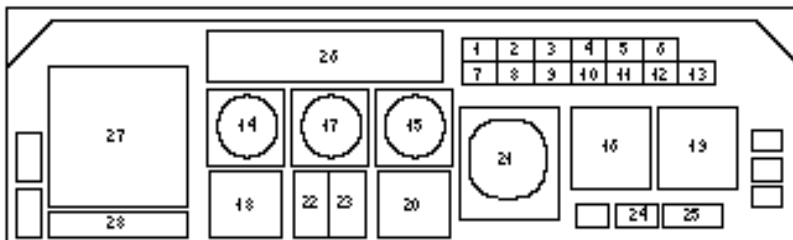
## M I L H I - 8 H I P C O C K P I T



- |                          |                             |
|--------------------------|-----------------------------|
| 1 ENGINE INDICATOR       | 14 VERTICAL SPEED INDICATOR |
| 2 ROTOR INDICATOR        | 15 HEADING                  |
| 3 LOW ALTITUDE           | 16 SLIP INDICATOR           |
| 4 ROTOR FAILURE          | 17 FUEL GAUGE               |
| 5 HMD FAILURE            | 18 ALTITUDE                 |
| 6 HYDRAULIC FAILURE      | 19 TAKAN                    |
| 7 SPEED OVERRUN          | 20 ARTIFICIAL HORIZON GAUGE |
| 8 ENGINE FAILURE         | 21 ENGINE INDICATOR         |
| 9 ROTOR STALL            | 22 ROTOR INDICATOR          |
| 10 LOW FUEL              | 23 PRESENT WAYPOINT         |
| 11 NAVIGATION FAILURE    | 24 MESSAGE BAR              |
| 12 WHEEL BRAKE INDICATOR | 25 WEAPON STATUS            |
| 13 AIR SPEED INDICATOR   |                             |

# KA-50 HOKUM

## WESTLAND ARMY LYNX COCKPIT



- |    |                       |    |                          |
|----|-----------------------|----|--------------------------|
| 1  | LOW ALTITUDE          | 15 | VERTICAL SPEED INDICATOR |
| 2  | ROTOR FAILURE         | 16 | HEADING                  |
| 3  | NAVIGATION FAILURE    | 17 | SLIP INDICATOR           |
| 4  | HMD FAILURE           | 18 | FUEL GAUGE               |
| 5  | MFD FAILURE           | 19 | ALTITUDE                 |
| 6  | ENGINE INDICATOR      | 20 | TAKAN                    |
| 7  | LOW FUEL              | 21 | ARTIFICIAL HORIZON GAUGE |
| 8  | HYDRAULIC FAILURE     | 22 | ENGINE INDICATOR         |
| 9  | ENGINE FAILURE        | 23 | ROTOR INDICATOR          |
| 10 | ROTOR STALL           | 24 | PRESENT WAYPOINT         |
| 11 | SPEED OVERRUN         | 25 | RADAR DETECTION RANGE    |
| 12 | ROTOR INDICATOR       | 26 | MESSAGE BAR              |
| 13 | WHEEL BRAKE INDICATOR | 27 | MULTI-FUNCTION DISPLAY   |
| 14 | AIR SPEED INDICATOR   | 28 | WEAPON STATUS            |

# KA-50 HOKUM

## AIR SPEED INDICATOR

Shows the horizontal speed of the helicopter in knots (100 knots is equivalent to roughly 114 mph or 185 km/h).

## VERTICAL SPEED INDICATOR

Shows how quickly the helicopter is climbing or descending - in knots.

## HEADING

The green line always points to the heading of the current waypoint (see MOVING THE SHIP on page 25).

## SLIP INDICATOR

Shows the helicopter's drift to the side.

## FUEL GAUGE

Don't let it end up in the red! Take heed of the Low Fuel warning light.

## ALTITUDE

The helicopter's height above sea level, in feet.

## RADALT

RADar ALTitude. Used to determine the height of the helicopter above the ground directly below, not sea level. This is useful to know when flying over hilly terrain.

- Press the S key to toggle the RadAlt on or off.

## TAKAN

Effectively a Base Ship Indicator. The green line always points towards the Base Ship; the red line always points in the opposite direction.

## ENGINE INDICATOR

Lights up green when the engine is on.

## ROTOR INDICATOR

Lights up green when the rotors are engaged.

## ENGINE TEMPERATURE

Don't let the engine overheat!





# KA-50 HOKUM

## WHEEL BRAKE INDICATOR

Lights up green to show that the wheel brakes are on. Note that the Cobra has skids instead of wheels.

- Press the W key to toggle the wheel brakes on or off.

## ROTOR RPM

Shows how fast the main rotor blades are rotating.

## ARTIFICIAL HORIZON GAUGE

Or Attitude Ball. It shows the current pitch and roll of the helicopter, ie, how level is its flight.

## RATE OF CLIMB

The change in altitude in feet per second.

## MESSAGE BAR

Alerts to you any change in the current situation. Warnings such as Enemy Approaching Base Ship are displayed here. You are also informed of the enemy type, its approximate direction and relative altitude.



This example shows that an AH-64A Apache is approaching at 3 o'clock (3OC), ie, from the right, and is flying at an altitude higher (H) than your helicopter.

## WEAPON STATUS

Shows which weapon is ready to fire and the quantity unleashed with every shot.

- Press the Backspace key to switch between available weapons.

## FORWARD-LOOKING INFRA-RED (FLIR)

An essential aid for night flight. Objects are seen by the heat they generate; the brightest colours represent the hottest objects, eg, heat from gunfire or active missiles.



- Press the I key to toggle the FLIR on or off.

## MULTI-FUNCTION DISPLAY

The Cobra and Lynx each have one Multi-Function Display (MFD); the Hokum has two, but the Hip has none.



- Press the ; key to cycle through MFD1's functions.
- Press the ' key to cycle through MFD2's functions (Hokum only).

**COMPASS** The four main points always indicate the appropriate directions.



**WEAPONS LOAD** An overview of the weapons on board.

**RADAR DETECTION** A line points in the direction of radar signals. The longer the line, the stronger the signal.

- Press the / key to adjust the range of the radar detection: 3, 7, 15, 30 or 60 km.

**TARGETING** When using Sidewinder missiles, a representation of the target is shown here.

# KA-50 HOKUM

## WARNING LIGHTS

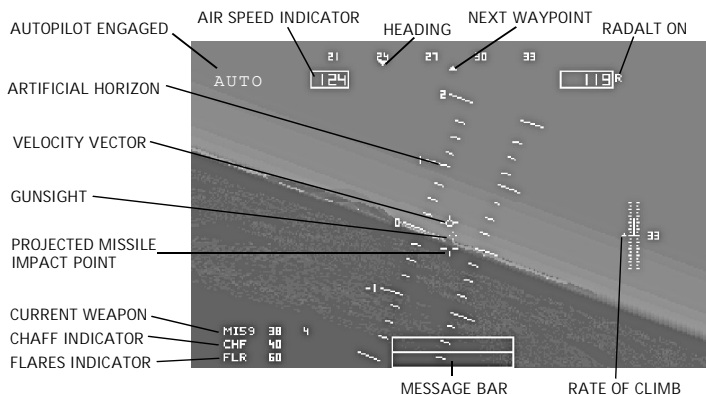
Hits from enemy shots affect your helicopters in different ways.

- LOW ALTITUDE** As in below 100 feet above the ground.
- ROTOR FAILURE** Oh dear (understatement).
- NAVIGATION FAILURE** All associated instruments are no longer functioning correctly.
- HMD FAILURE** This light confirms what you probably already know: your HMD is dead.
- MFD FAILURE** Ah, so that's why it doesn't work...
- LOW FUEL** Head for the Base Ship to refuel - or die!
- HYDRAULIC FAILURE** Helicopters are packed with hydraulic functions essential to maintaining flight. Should your helicopter suffer severe damage in this department, panic.
- ENGINE FAILURE** Don't panic - if the blades are intact, you could still bring the helicopter down safely.
- ROTOR STALL** The higher the helicopter's nose is raised, the more chance there is of the rotor blades stalling. And if the rotor blades stop rotating... good-bye.
- SPEED OVERRUN** Launch into a dive then pull up quickly to see this light illuminate.

## THE HELMET MOUNTED DISPLAY

Like a Head-Up Display but attached to the pilot's helmet. Most of the Helmet-Mounted Display (HMD) is shown when the cockpit is in view.

The Helmet-Mounted Display



## HEADING

In degrees (note that the numbers show a tenth of the actual value).

## CHAFF INDICATOR

Shows the quantity of chaff remaining. Each helicopter is equipped with 40 units of chaff.

## FLARES INDICATOR

Shows the quantity of flares remaining. Each helicopter is equipped with 60 flares.

## ADJUSTING COLLECTIVE

The collective of the main rotor blades can be adjusted in small or large increments.

- Press a number key from 1 to 0 to adjust the collective from 10 per cent to 100 per cent.
- Press the + key to increase the collective by 1 per cent.
- Press the - key to decrease the collective by 1 per cent.

## REAR ROTOR BLADES

Useful for turning the helicopter. By increasing or decreasing the speed of the rear rotor, the resistance of the helicopter's tail is increased or decreased; a rudder effect is achieved and the tail is pushed round. With the rear rotor blades at the correct speed, the helicopter does not turn.

Note that the Hokum does not have rear rotor blades; instead the rotation of the second set of blades is adjusted.

- Press the > key to increase the speed of the tail rotor blades (or the Werewolf's second set of rotor blades).
- Press the < key to decrease the speed of the tail rotor blades (or the Werewolf's second set of rotor blades).

## USING THE AUTOPILOT

The computer takes total control of the helicopter, flying it to waypoints, landing it and so on - but it won't fly quite as well as an experienced pilot. If the active helicopter is on a mission, the autopilot will fly it to the next waypoint; otherwise the helicopter will return to the Base Ship.

- Press the A key to activate or deactivate the autopilot.

There are in fact three further types of autopilot, as follows...

**CONTINUOUS LEVEL MOVEMENT** This is similar to the autopilot activated when the Strategic Map is selected during flight - and it's not as 'intelligent' as the 'standard' autopilot. The helicopter's speed and altitude is maintained, but that's all. Beware of flying into mountains!

- Press the Y key for continuous level movement.

**AUTOHOVER** The helicopter is brought to a hover.

- Press the H key to activate or deactivate the autohover function.

**AUTOLANDING** The helicopter is taken to the next waypoint or the Base Ship and landed for you.

- Press the L key to activate or deactivate the autoland function.

## NAVIGATION

The Strategic Map shows the position of active helicopters and the Base (Fort) Ship. Waypoint markers are used on the Strategic Map to plot a course for the helicopters. For further details on using waypoints, see MOVING THE SHIP on page 25.

- Press and hold a Ctrl key then press the M key to access the Base Ship's Strategic Map during flight. Note that if you are not following a pre-defined mission a form of autopilot is engaged; the helicopter will maintain a level speed and altitude, but only for a distance of 3-4 km.

The following cockpit instruments can be used to keep track of your bearing:

The Multi-Function Display Compass features a waypoint indicator line to show the direction of the next waypoint (the number in the top right-hand corner corresponding to the positions on the Strategic Map) or the Fort Ship (represented by 'F').

- Press the [ key to cycle through the waypoints.

The Helmet-Mounted Display uses two triangles to show the direction of the waypoint (or Fort Ship). When the two triangles are aligned, the helicopter is heading towards the current waypoint. Bear in mind that your bearing in degrees is also shown.

**QUICK TIP** Using the autoland function will always point the helicopter towards the Base Ship.

## OFFENSIVE MEASURES

- Press the Backspace key to cycle through the available weapons.
- Press the N key to adjust the number of unguided rockets fired.

### USING WEAPON SIGHTS

Assume the role of a 'co-pilot' to use certain weapons. When the helicopter is under autopilot control and a weapon is selected, so too is the appropriate view.

The fixed cannons on the Hip and Lynx are fired from the HMD view. When flying the Hokum or Cobra however, the following view is presented for the purpose of aiming gunfire. Note the realistic vibration of the craft when its cannons are fired (but don't let it distract you).

Note that the Hokum's gun can only move through a very small angle, but the Super Cobra's gun movement is restricted to roughly 80 degrees to the left and right and below (effectively a quarter of a sphere).

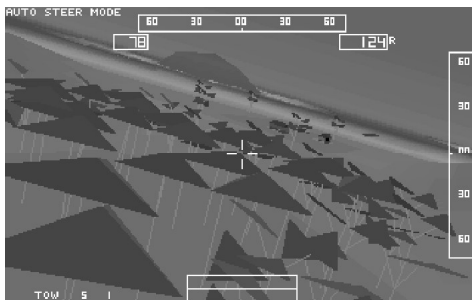


# KA-50 HOKUM

When using a TOW missile (say, a Swatter or Sagger), the following sight is presented:

The numbers across the top and down the side respectively represent your current yaw and elevation.

As soon as the TOW missile is launched, some 3,750 metres of cable are reeled out (the length determines the missile's effective range; once it breaks, the missile's on its own). It's up to you to guide the missile to its target (signals are sent down the wire); concentrate on keeping the cross on the target (ideally the yaw and elevation will read 0 and 0).



When using TOW missiles or rockets, bear in mind that irrespective of your view, the weapon is launched straight ahead. If a TOW missile is launched at an extreme angle from its target, the chances of it hitting home are significantly reduced due to the missile's inability to turn quickly.

**QUICK TIP** Experienced Cobra pilots often attack inactive ground-based targets by hovering over them and letting rip with their guns

## DEFENSIVE MEASURES

### CHAFF

Little pieces of aluminium foil used to confuse the detection unit in a radar-guided missile. Each helicopter is supplied with 40 chaff units.

- Press the C key to release chaff (two units at a time).

### FLARES

Used to confuse heat-seeking missiles. Each helicopter is supplied with 60 flares.

- Press the F key to release flares (two at a time).

### JETTISON STORES

If there's a danger of the damaged helicopter crash-landing, drop your highly explosive load - and fast.

- Press and hold a Ctrl key then press the R key to jettison stores.

### EJECT

Only the Hokum comes fitted with a pilot ejection system.

- Press and hold a Ctrl key then press the E key to eject from the Hokum.

## HOLD IT!

If the need arises to suspend the simulation ...

- Press the P key to freeze the simulation.
- Press the P key when the simulation is suspended to resume play.



# KA-50 HOKUM

## SHORT CUTS

### FAST TIME

Increase the speed of the simulation by a factor of five.

- Press the X key to toggle the fast time on or off.

## T H E S H I P

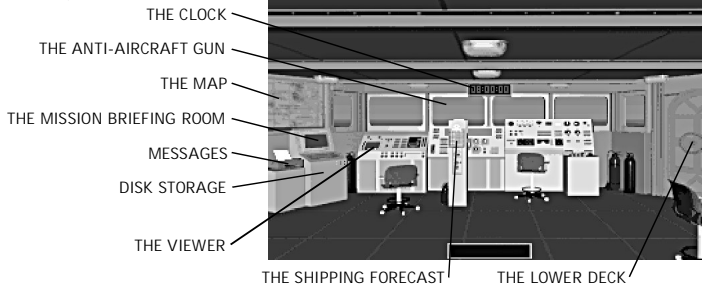
It's a standard Fort Supply Ship, in case you were wondering. On board are four different helicopters and a vast supply of weaponry (the likelihood of running dry is extremely slim). An anti-aircraft gun is mounted at the front of the craft.

Note that a replacement for each of the four helicopters is on standby and will automatically be flown to the Base Ship when necessary. When all helicopters are lost, the enemy has won.

## THE BRIDGE

From the bridge you can access all necessary functions such as the Strategic Map and the helicopter hangar below deck.

The ship's bridge



## THE ANTI-AIRCRAFT GUN

It's mounted at the front of your ship and can be used to shoot enemy targets. Note that the Anti-Aircraft Gun cannot be shot at your own ship. To access the Anti-Aircraft Gun from the ship's bridge, simply select the forward view. Alternatively...

- Press and hold a Ctrl key then press the A key to access the Anti-Aircraft Gun.

The helicopter movement and firing controls are used to manipulate the Anti-Aircraft Gun. If any airborne enemy units are in your vicinity, the centre of the targeting crosshair will turn red.

- Press the T key to activate the Anti-Aircraft Gun's automatic tracking of enemy targets.

## THE CLOCK

Shows the simulated time elapsed. The clock will only start once play is underway.



## DISK STORAGE

The state of play can be saved to (and loaded from) the hard disk (nine slots are available). It's wise to save your state of play before going into battle, or when the situation is looking, well... dodgy.



- Use the pointer to choose a slot (a green bar shows the slot is empty).
- Select the LOAD icon to load the state of play stored in the chosen slot.
- Select RETURN or press the Esc key to return to the ship's bridge.
- Use the keyboard to type a suitable filename (a maximum of 20 characters - including spaces). Use the arrow (cursor) keys to move between the characters.
- Press the Delete or Backspace key to remove characters.
- Press the Enter key to save your state of play.

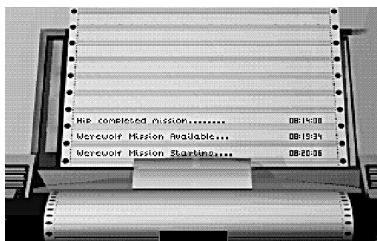
## THE SHIPPING FORECAST

To allow you to prepare for the worst, you can view the name, type, day and time of arrival of ships in the area. Should you forget that a ship is in the area and it's attacked by pirates, you will be alerted to the fact on an active helicopter's Message Bar. A fast response is essential, otherwise the ship may be sunk.

- Press the Esc key to return to the bridge.

## MESSAGES

Displays details of events to reflect the state of play. The printer's light will flash when new messages are ready to be viewed. Note that each timed event will disappear after approximately four minutes.



## THE VIEWER

View at your leisure the four different helicopters at your disposal plus details of the two enemy craft. Use the arrows to rotate the helicopter shown in any direction. Select NEXT or PREV to change the helicopter in view. Select QUIT (or press the Esc key) to return to the bridge.

# KA-50 HOKUM

## THE LOWER DECK

Allows access to the following areas of the ship:

The lower deck

THE MISSION BRIEFING ROOM

THE STOREROOM

THE HANGAR



THE BRIDGE

QUICK TIP Select a communications device (eg: a speaker or the telephone) anywhere on the ship to return to the bridge.

## THE MISSION BRIEFING ROOM

Select the monitor on the Bridge to access the Mission Briefing Room.

The Mission Briefing Room

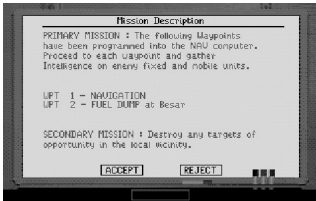


THE BRIDGE

NOTICE BOARD

THE LOWER DECK

Missions available are shown on this board (if it's empty, there are none). Choose a mission to view further details, ie, the type of mission and the helicopter required.



Now you can choose to ACCEPT or REJECT the mission.

Note that if the on-board computer decides to take a mission while it's in view, you will be told MISSION TAKEN BY ANOTHER PILOT and from here you can only REJECT the mission. A mission taken will disappear from the board.

## THE HANGAR

The four helicopters and all weaponry are stored here. Use the arrows to rotate the helicopter in view. Note the status of the helicopter is also shown (for example, it may be out on a mission).

## CHOOSING A HELICOPTER

The Cobra is always the first helicopter shown. Select NEXT to view the next helicopter on the list (in this case the Hokum) or PREV to view the previous helicopter (in this case the Lynx). To choose the helicopter shown, select ACCEPT. To return to the Bridge, select QUIT.

Choosing a helicopter





# KA-50 HOKUM

## ARMING A HELICOPTER

Having chosen a helicopter, you can arm it. Default weaponry is provided, but you may feel the need to adapt the load to suit the mission at hand.

The armoury

### AVAILABLE WEAPONRY

- Press the Esc key to return to the bridge.

### ADDING AND REPLACING WEAPONS

Position the pointer over the desired weapon from the selection available.



SELECTED WEAPON

- Press the left-hand mouse button to 'pick up' the weapon.

Position the pointer over the desired mounting (a cross shows that the mounting is available).

- Press the left-hand mouse button to mount the weapon or replace the existing weapon.
- Select DEF to arm the helicopter with the default weaponry.
- Select PREV to arm the helicopter with the last used selection of weaponry.
- Select OK when you are happy with the weaponry selection. The helicopter is automatically positioned on deck, ready for take off.

If you wish to use a different helicopter ...

- Press the Esc key to call up the Options.
- Select SHIP then BRIDGE to return to the bridge and access the hangar. Note that the newly selected helicopter will replace the one previously chosen.

REMOVING WEAPONS Position the pointer over the weapon mounted on the helicopter.

- Press the right-hand mouse button to remove the weapon from the helicopter.
- Select CLR to remove all weaponry from the helicopter.

## THE STOREROOM

Check on the current status of weapons and helicopters.

The Storeroom

Select the monitor to call up details of your supplies.



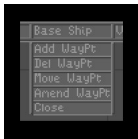
# KA-50 HOKUM

Select QUIT to return to the storeroom.



## MOVING THE SHIP

The ship can only be moved from the Strategic Map. Waypoints are used to plot a course for the ship to follow. Note that waypoints can also be used to determine the destination of the helicopters.



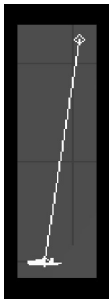
Select the Base Ship menu. Alternatively, press the B key to call up the list of options.

### ADDING WAYPOINTS

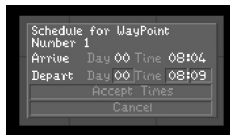
Select Add WayPt from the Base Ship menu.



The cross will change to a diamond. Move the diamond to the desired position.



- Press the left-hand mouse button to place a waypoint beneath the diamond. Note that a waypoint cannot be plotted if it would mean the ship has to pass through land, but the course indicated by one waypoint can be crossed another.



When a waypoint is plotted, the Schedule menu is presented so the day and time of the ship's departure from the waypoint can be adjusted. Position the pointer over the day or time.

- Press the left-hand mouse button to increase the day or time.
- Press the right-hand mouse button to decrease the day or time.

If the day and time of departure are agreeable, select Accept Times. If you wish to reposition the waypoint, select Cancel. Continue plotting waypoints as necessary.

- Press the right-hand mouse button to cancel the plotting of waypoints. The ship will begin its journey.

**QUICK TIP** It's wise not to confuse matters by using too many waypoints - stick to half a dozen at most.

### REMOVING WAYPOINTS

Select Del WayPt. Position the diamond over the waypoint to be deleted.

- Press the left-hand mouse button to select the waypoint to be deleted.

# KA-50 HOKUM

Three new options are presented on the Base Ship menu:

- Select Delete to remove the waypoint. Note that a waypoint cannot be removed if it would result in an invalid path.
- Select De-Select to return to the map ready to choose another waypoint.
- Select Cancel to return to Zoom mode.

## MOVING WAYPOINTS

Select Move WayPt. Position the diamond over the waypoint to be moved.

- Press the left-hand mouse button to select the waypoint to be moved.
- Press and hold the left-hand mouse button then move the mouse to move the waypoint. Note that the waypoint cannot be moved to a position that would create an invalid path.

## ALTERING WAYPOINTS

Adjust the day and time of the ship's departure from the waypoint. Select Amend WayPt. Position the diamond over the waypoint to be amended.

- Press the left-hand mouse button to select the waypoint to be amended.

The Schedule menu is presented. You can now adjust the day and time.

- Press the Esc key to terminate the ship's movement between waypoints.

## T H E M A P

Select Close or Cancel to abandon the chosen function.

Note that not all enemy bases are shown on the Strategic Map, which makes a reconnaissance flights a must.

- Use the arrow (cursor) keys to move the map.
- Press the Page Up key to zoom in on the map.
- Press the Page Down key to zoom out of the map.
- Press the key corresponding to the first letter of the menu to open it.
- Press the Esc key to close a menu.

Messages Important details are shown here, eg, missions available, your ship is under attack, you have hit a target, and so on.

As a reminder, the function currently selected is described at the bottom of the screen. Note that Zoom is the default function.

## MOVING THE MAP

- Press and hold the right-hand mouse button then move the mouse to move the map in the same direction.

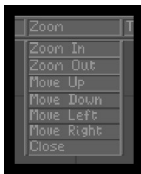
```
Day 00 Time 08:00 Messages : [105 44' 51" | 1102 56' 45"]
Function : Select Function      L_Button : Zoom In      R_Button : Zoom Out      Hold_R_Button : Drag Map
```

Alternatively, use the four options on the Zoom menu or even the arrow (cursor) keys to move the map.



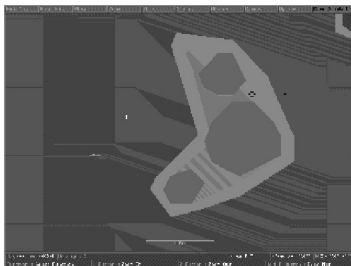
# KA-50 HOKUM

## TAKING A CLOSER LOOK AT THE MAP

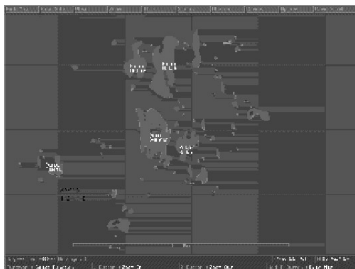


Select the Zoom option. Alternatively, press the Z key to call up the options. Use the two options on the Zoom menu to zoom in and out of the map.

- Alternatively press the left-hand mouse button to zoom in on the area around the pointer.



- Press the right-hand mouse button to zoom out of the area around the pointer.



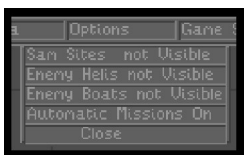
## TO RETURN TO THE BRIDGE FROM THE MAP



Select the Exit Map option to return to the ship's bridge. Alternatively, press the E key or the Esc key.

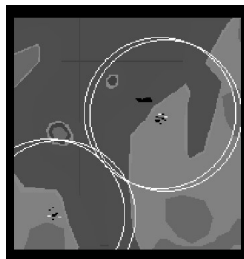
## VIEWING ENEMY UNITS ON THE MAP

Select the Options menu. Alternatively, press the O key to call up the options.



Four options are presented ...

Sam Sites on the Strategic Map are white and look like this ... Unless the not visible option is selected.



# KA-50 HOKUM

Enemy Helis on the Strategic Map are black and look like this ... Unless the not visible option is selected.



Enemy Boats on the Strategic Map are black and look like this ... Unless the not visible option is selected.

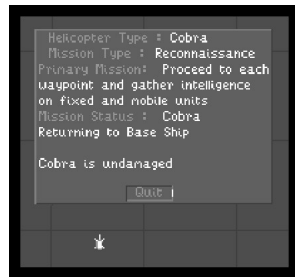
Note that the enemy units are only shown when the Start Game option is selected.

## VIEWING THE STATUS OF ISLANDS AND ALL UNITS

Discover details about, say, the position of your ship and the status of its AA Gun and helicopters - or the number of buildings on an island and their current condition. Select the Status option. Alternatively, press the S key to activate the Status function.

- Press the left-hand mouse button to select the unit beneath the cross.
- Press the right-hand mouse button to cancel the Status option and return to Zoom mode.

Status Calls up details of the chosen unit or island.  
Select Quit to return to the map.



## TAKING AN EVEN CLOSER LOOK AT THE ENVIRONMENT

Select the View option. Alternatively, press the V key to activate the View function. The following on the Strategic Map can be selected and viewed: helicopters on your side, enemy bases and buildings ...

USING THE CAMERAS Four indestructible cameras can be positioned anywhere on the Strategic Map to view any position. Note that these cameras are not linked to the external views available during flight.

Select the Camera menu. Alternatively, press the C key to call up the options: View and Move. Select the View option to call up a choice of four cameras. Select a camera to view the surrounding area. Use the helicopter movement controls to pan the camera around. Press the Esc key to return to the map.

# KA-50 HOKUM

Select the Move option to call up the choice of four cameras. Select a camera.

- Press the left-hand mouse button to position the camera.
- Press the right-hand mouse button to cancel the action.

## ADVANCING TIME ON THE MAP

Select the Time menu. Alternatively, press the T key to call up the options.

**Step WayPt** Move the ship to the next waypoint. Note that the whole environment is sped up.

**Step Mission Skip** the latest computer-generated mission and activate the next one.

**Step Minute Advance** the clock by one minute.

**Pause** Suspend the whole simulation. Note that when using the Strategic Map, the simulation doesn't stop running unless you use this option.

## FURTHER OPTIONS

Fine-tune the simulation to your liking. Select to determine the option's status. Select the Options menu.

- SAM Sites can be Visible or Not Visible.
- Enemy Helis can be Visible or Not Visible.
- Enemy Boats can be Visible or Not Visible.
- Automatic Missions can be On or Off - If this option is set to off the computer will not generate missions for you, turning off this option means you'll have to fly all missions yourself.

The Graphics options found while in flight or in the Load/Save option let you determine the level of detail, from Textured Sea, Buildings or Trees, to Gouraud Shading and Horizon Shading.

## M I S S I O N S

The simulation begins with your ship based in the top right-hand corner of the map; the enemy headquarters is not shown on the map, but it lies somewhere in the region of the lower left-hand corner. Between your Base Ship and the enemy HQ there are dozens of enemy bases to destroy. You may notice an enemy base nearby with three huts, an oil dump, a pier and (if it hasn't sped away) a speedboat at its end.

Don't waste time positioning cameras in an attempt to locate the enemy headquarters - it won't be easy to find. It's also unwise to attempt to destroy the enemy headquarters from the outset, as the resistance is near impossible to counter.

Unless you decide otherwise, the ship's computer handles the strategic planning. Missions are automatically generated but only those applicable to your position and status will be presented. You can never be certain of the strength of the enemy threat, so reconnaissance missions are always on the cards. But you can be certain that there will never be a dull moment: the enemy will always be up to something - and you will always be alerted to the situation. To activate the missions, simply start the clock.

The missions are automatically flown for you. Helicopters appropriate to the situation will be launched and it's up to you to choose how you will interact with the missions. Obviously your



# KA-50 HOKUM

interference will make a difference to the mission's outcome - one way or the other. Missions include the escort of ships and protection from enemy attack, interdiction and reconnaissance.

As your confidence grows you can take on greater responsibilities and mastermind the whole operation (the computer does a functional job which does not guarantee success). You can generate your own missions - say, assuming a support role or sending out multiple helicopters to take out multiple enemy sites.

Given the different combat roles of the helicopters, it makes sense to send out more than one for certain missions. For example, use the Werewolf or Cobra to take out the offensive elements, then send in a Hip or Lynx to clean up the remainder. Note that there is a minimum interval of three minutes between each helicopter launch from the ship.

Don't bother attempting to fly beyond the boundaries of the map - if you don't run out of fuel or get shot down, you are certain to be held responsible for any ships that might go missing while you were messing around.

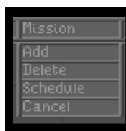
Be warned that when a helicopter is hit by enemy fire, the resultant vibration makes it harder to fly.

## MAKING YOUR OWN MISSIONS

It couldn't be simpler. Select the Mission menu. Alternatively, press the M key to call up the options.

### ADDING A MISSION

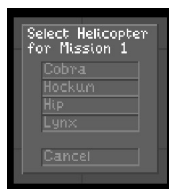
Select the Add option to call up a list of mission types.



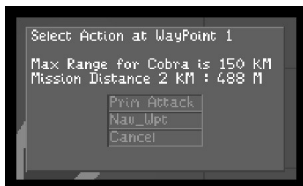
Choose a mission type from Reconnaissance or Interdiction. A list of helicopters will then be presented.



Select a helicopter suitable for the mission in question.



To determine the helicopter's destination, waypoints must be plotted (in the same way as they are for the ship).

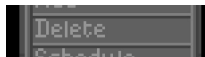


Select whether the waypoint is for navigation purposes (Nav\_Wpt) or the helicopter is to attack the location (Prim Attack).

To abandon an active mission, adjust the helicopter's waypoints to the Base Ship. Alternatively, press the L key in flight and the helicopter will automatically be flown to the Base Ship and landed.

### DELETING A MISSION

Select Delete on the Mission menu to call up the schedule.

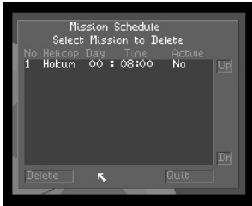


# KA-50 HOKUM

Select which mission is to be deleted then choose OK to delete it.



**VIEWING THE MISSION SCHEDULE**  
Select Schedule from the Mission menu to call up a list of all active missions.



As you can see, missions can be amended. Add a waypoint, move a waypoint or alter the action at a waypoint in the same way as it was created.

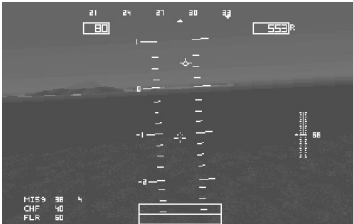
## IN - FLIGHT VIEWS

Play isn't affected by the use of this special remote camera, but it can bring to life the full explosive impact of combat in the air and over the Gouraud-shaded and texture-mapped terrain.

### INTERNAL VIEWS

The outside world as viewed from the comfort of the helicopter's cockpit.

- Press the F1 key for a forward view with the cockpit visible.



- Press the F2 key for a forward view through the HMD.
- Press the F3, F4, F5 or F6 key for side and reverse views through the HMD.

### EXTERNAL VIEWS

A two-stage zoom function is provided.

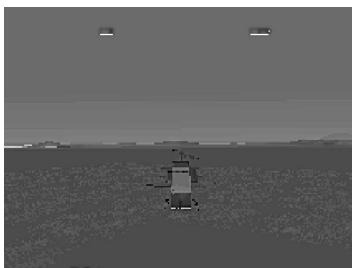
- Press the V key to view the helicopter from behind.





# KA-50 HOKUM

- Press the F3 key for a head-on view.



- Press the F4 key for a side-on view.



- Press the F5 key for a three-quarter side-on view.

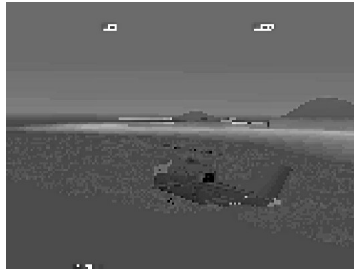


- Press the F6 key for a three quarter view from the other side.



# KA-50 HOKUM

- Press the F7 key to move the view in an anticlockwise direction around the helicopter.



- Press the F8 key to move the view in a clockwise direction around the helicopter.
- Press the F9 key to move the view 'down' and around the helicopter.
- Press the F10 key to move the view 'up' and around the helicopter.
- Press the Page Up key to zoom in.
- Press the Page Down key to zoom out.

## FLYPAST VIEWS

See the helicopter fly past a fixed point.

- Press the O key for a flypast view.



## MISSILE-EYE VIEW

Follow the path of a missile launched from your helicopter through a camera situated in the missile's nose-cone.

- Press the K key to track the missile's view.



## ENEMY VIEW

See your ship or helicopter from the eyes of a nearby enemy unit.

- Press the J key to switch between enemy views.

## O P T I O N S   D U R I N G   P L A Y

The following options are available in flight...

- Press the Esc key to call up the options bar.
- Press the Esc key to remove the options bar.
  
- Use the arrow (cursor) keys to highlight the relevant option.
- Press the Enter key to open an option menu or select a highlighted option.
- Select CLOSE or press the Esc key to remove the option menu.

A small tick shows that the option is active.

### SHIP

Fast access to the ship's BRIDGE or the MAP.

### CONTROLS

Choose between JOYSTICK, MOUSE or KEYBOARD to determine the helicopter flight controls (we recommend an analogue joystick). Note that the keyboard is always used to activate certain functions.

Extra JOYSTICK options are as follows: STANDARD STICK, BIOS GAME PORT, ANALOGUE RUDDER, ANALOGUE THROTTLE, THRUSTMASTER STICK, THRUSTMASTER THROTTLE and CALIBRATE.

Select CALIBRATE and follow the on-screen prompts to calibrate the chosen joystick. Note that a Thrustmaster joystick requires a second 'game' port if the 'hat' is to be used.

### SHADING

Adjust the level of visual detail to suit the speed of your machine. Choose from a shaded HORIZON, GOURAUD-shaded landscape, TEXTURE-mapped helicopters and terrain, and SEA SHADING.

### MODEL

Change the complexity of the flight model - and the ease of use, too. Choose between SIMPLE (or MPS Mode as it's also known) or COMPLEX (the full monty for experience helicopter pilots).

### SOUNDS

Turn on or off the ENGINE noise or ALL SOUND. Alternatively, press the Q key to toggle the engine sound on or off.

QUICK TIP The sensation of 'being there' is considerably enhanced when using a pair of headphones or earphones instead of speakers in conjunction with a sound board.

### QUIT GAME

To quit to DOS select the GO TO DOS option.

## G L O S S A R Y   O F   T E R M S

AAA	Anti-Aircraft Artillery
AAM	Air-to-Air Missile
AMRAAM	Advanced Medium-Range Air-to-Air Missile
ASI	Air Speed Indicator
ASM	Air-to-Surface Missile
CHF	Chaff
Collective	The angle of the rotor blade
Cyclic	Effectively the controls used to initiate movement forwards and backwards.
EWD	Electronic Warning Display
FLR	Flares
FLIR	Forward-Looking Infra-Red
HE	High Explosive
RadAlt	Radar Altitude: shows the helicopter's altitude from the ground directly below
SACLOS	Semi-Automatic Command to Line-Of-Sight
SAM	Surface-to-Air Missile
shp	standard horse power
TOW	Tube-launched, Optically tracked and Wire-Guided. Note that the TOWs in this simulation are wire-guided only.
Wire-Guided	The missile is directed via a wire linked to the missile and the helicopter

## K E Y B O A R D   C O N T R O L S U M M A R Y

### DURING FLIGHT

#### ENGINES AND ROTORS

E	Engines On/Off
R	Rotor Engage/Disengage
1	Rotor Collective 10%
2	Rotor Collective 20%
3	Rotor Collective 30%
4	Rotor Collective 40%
5	Rotor Collective 50%
6	Rotor Collective 60%
7	Rotor Collective 70%
8	Rotor Collective 80%
9	Rotor Collective 90%
0	Rotor Collective 100%
=	Rotor Collective +1%
-	Rotor Collective -1%
<	Decrease Tail Rotor Speed (Werewolf: Second Blade Rotation Speed)
>	Increase Tail Rotor Speed (Werewolf: Second Blade Rotation Speed)
W	Wheel Brakes On/Off
Ctrl + E	Eject (Hokum Only)
Ctrl + R	Jettison Stores



# KA-50 HOKUM

## AUTOPILOT AND NAVIGATION

A	Autopilot On/Off
Y	Autopilot (Level Out Only)
H	Autohover On/Off
L	Autoland On/Off
S	RadAlt On-Off
Backspace	Cycle Active Weapon
T	Cycle Target Designation
C	Chaff
F	Flare
I	FLIR On/Off
N	Cycle Weapon Count
Spacebar	Fire Active Weapon
[	Cycle Next Waypoint
;	Cycle MFD1 Function
'	Cycle MFD2 Function (Hokum Only)
\	Toggle EHSI Radar Range: 3, 7, 15, 30 or 60 km

## MISCELLANEOUS

P	Pause Simulation
Q	Quiet! (Toggle Engine Sound On/Off)
X	Fast Time On/Off
Ctrl + N	Mouse Control
Ctrl + S	Switch Between Simple/Complex Flight Model
Alt + G	Toggles Gouraud Shading On/Off
Esc	Access In-Flight Options, Close Options Menu, Quit Options
Ctrl + A	Access Base Ship's Anti-Aircraft Gun
Ctrl + B	Access Base Ship Bridge
Ctrl + C	Access Active Cobra
Ctrl + H	Access Active Hip
Ctrl + L	Access Active Lynx
Ctrl + M	Access Strategic Map
Ctrl + W	Access Active Werewolf (Hokum)

## INTERNAL VIEW CONTROLS

F1	Cockpit On
F2	Cockpit Off

## EXTERNAL VIEW CONTROLS

O	Outside Flypast View
V	View External (Behind Helicopter)
F1	View Behind
F2	View Ahead
F3	View Left
F4	View Right
F7 & F8	Rotate View Horizontally
F9 & F10	Rotate View Vertically
Page Up	Zoom In
Page Down	Zoom Out
J	Toggle Enemy View On/Off
K	Track Missile View On/Off



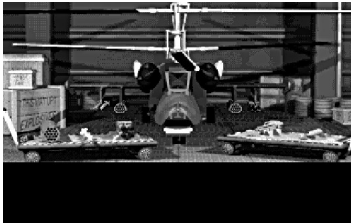
# KA-50 HOKUM

## ON THE MAP

Arrow (Cursor)	Keys Move Map
Page Up	Zoom In
Page Down	Zoom Out
B	Select BASE SHIP Menu
C	Select CAMERA Menu
E	Select EXIT MAP Option
G	Select START GAME Option
M	Select MISSION Menu
O	Select OPTIONS Menu
S	Select STATUS Option
T	Select TIME Menu
V	Select VIEW Option
Z	Select ZOOM Option
Esc	Close Menu, Terminate Ship's Movement, Return To Bridge

## T H E H E L I C O P T E R S

Four different types are at your disposal, each with its own advantages and disadvantages. From the ship's bridge, use the Viewer to look at the helicopters in detail (including the two enemy choppers).



### The Kamov Ka-50 Werewolf Anti-Tank Helicopter

The NATO name Hokum stems from reports of a 'hoax' helicopter in the late '80s. It was frequently seen flying over East-West German border and reported to NATO, but due to the Americans' failure to produce a working helicopter with counter-rotating blades, no-one was prepared to believe it.

The Hokum is the fastest helicopter at your disposal - and the quietest thanks to the absence of a noisy tail rotor. The Hokum has a good weapon load and is not only excellent for air-to-air combat but also for destroying ground-based threats.

This twin-turbine close support helicopter is practically impervious to anti-aircraft gunfire, thanks to its composite framework which doesn't fracture easily, and the honeycomb structure which dissipates the energy of a hit. Tank-busting weaponry is what's needed to pierce this baby and, fortunately for you, the enemy doesn't have any. Yet. For the high explosive air-to-air weapons to be effective against the Hokum, they have to hit it.

The Ka-50 Werewolf is the culmination of over a decade of development and competition for the top position in Russian Army Aviation. The Ka-50 optimally combines reliable helicopter design experience of Kamov and up-to-date technical solutions. The Ka-50 will be the main deterrent to any aggressor, in any region of the world.

A powerful combat helicopter of a new generation of fighter/attack helicopters, the Ka-50's principle missions in the battlefield are close air support, anti-tank and armoured vehicle combat support, and air-to-air combat. Its flight performance, high precision and powerful armament,

# KA-50 HOKUM

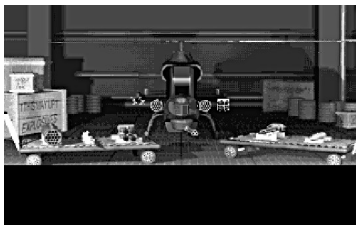
advanced integrated cockpit, and super armour protection and ejection seat rank the Ka-50 as the best combat aircraft of the world for tomorrow's battlefield.

Recently selected as the Russian Army's single pilot fighter/attack helicopter, the Hokum has a number of unparalleled features:

- Unsurpassed flight performance with coaxial rotor system and no tail-rotor required, powerful 2200 shp turbine engines providing 350 kph speed and excellent climb and manoeuvring performance for air-to-air combat.
- Carries a formidable standard mix of weapons including the GPU-20 and MI97 guns, M159 rockets, TOW missiles and AIM-9P 'Sidewinder' missiles.
- Advanced radio-electronic and combined measures integrated with cockpit and flight helmet to ensure piloting and mission control by a single pilot.
- Airframe and pilot protection unmatched by any attack helicopter in the world. Includes armour capable of sustaining 20 mm AAA from 100 metres, bulletproof canopy glass, and a pilot ejection system for previously non-survivable events. The rotors are blown at their axis and 0.1 seconds later a rocket pulls the pilot through the hole in the roof.

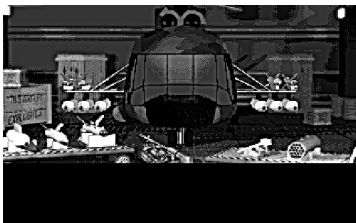
## The Bell AH-1W

The Super Cobra gunship is a fearsome-looking machine with an impressive combat record in South East Asia. The Cobra's unique shape gives it a low drag coefficient in the air and, more importantly, results in a near-invisible radar image. Its speed and a good weapon load (similar to the Hokum) make the Cobra superb for air-to-air combat and for removing ground-based threats.



## The Mil HI-8

Perhaps the most famous Russian helicopter ever built, this old favourite has seen action in many conflicts. The Hip has a slow turn rate and is primarily a troop-carrier and as such not recommended for air-to-air combat. However, it provides an excellent support role thanks to its capability of carrying an outrageous armament of guided and unguided weapons which can be used to destroy entire areas.



## The Westland Army Lynx

Like the Hip, the Lynx is also used primarily to carry troops and is not recommended for air-to-air combat. That said, it is a fast, manoeuvrable craft with an impressive tank-busting ability. The Lynx has proved particularly effective in combat, notably the Falklands and Gulf wars.



# KA-50 HOKUM

## K N O W   Y O U R   E N E M Y

Note that the enemy's armament will improve during play.

### GROUND-BASED UNITS

**TANKS** Most of them are mobile; all of them carry enough hardware to blow you away.

**SAM SITE** There are different types with different ranges. Some of them are mobile. To avoid detection and a SAM up the backside, try to keep below 400 feet.

**RADAR STATION** Don't fly too high and let them detect your presence. Radar detection is shown on the Electronic Warning Display (EWD): a line indicates that radar has locked on to your helicopter's position. Note that the Hokum has Electronic Counter Measures (ECM) pods fitted to its wings.

**ANTI-AIRCRAFT GUNS** Be warned: they can prove lethal in quantity!

**HELICOPTER BASES** From where the enemy helicopters are distributed. Helicopter Bases are usually surrounded by Anti-Aircraft Guns.

**ENEMY HEADQUARTERS** Immediately recognisable with its window shutters and courtyard.

### SEA-BASED UNITS

**SPEEDBOATS** Fast, manoeuvrable and very difficult to hit. There are 12 Speedboats found in Ka-50 Hokum, and their primary function is to supply enemy bases with information. Speedboats are not armoured.

### AIRBORNE UNITS

**AH-64A APACHES** These gunships carry a lethal load of weaponry and have a tendency to come straight for your Base Ship. The Apache is usually equipped with M230 30 mm Chaingun and 1,200 rounds of ammunition (effective on anything less than or equal to medium-armoured targets), plus TOWs and fire-and-forget rockets.

**AH-6G DEFENDERS** Light gunships and scout helicopters. Defenders are small, fast and manoeuvrable - but only over short distances. These bulbous babies usually sport nothing more than cannons for armament, but be prepared to encounter some carrying air-to-air missiles.

## H E A D - T O - H E A D   C O M B A T

Ensure your computer is connected to another suitable machine via a modem or null modem cable. Note that the connection must be set up before running Ka-50 Hokum.

Each player takes control of a helicopter (from the choice of four on the ship) and attempts to eradicate the other player.

### BIBLIOGRAPHY

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Italeri Model Kit No 031 KAMOV KA-50 "HOKUM" 1:72 Scale

