

## AVSIM Freeware Aircraft Review

# FS KBT Lockheed/Kawasaki P3-C Orion



| Rating Guide   |                                   |   |
|--|-----------------------------------|---|
| <b>Publisher:</b> <a href="#">FS KBT</a>                                 |                                   |   |
| <b>Description:</b> Freeware aircraft for FS2004                         |                                   |   |
| <b>Download Size:</b><br>70 Mb   | <b>Format:</b><br>Executable file | <b>Simulation Type:</b><br>FS 2004 Add-on |
| <b>Reviewed by:</b> <a href="#">Alexis Esguerra</a> AVSIM Staff Reviewer |                                   |   |

**The AVSIM Commercial Rating System:** 1 Star to 5 Stars (with 5 stars being exceptional) *Please see details of our review rating policy [here](#).*

## Introduction

An enduring aircraft design is its own testament to its excellence. Any plane that can soldier on for years, despite improvements in aeronautical knowledge and available technology, has to possess remarkable traits in order to avoid fading into oblivion. The DC-3 is a great example, 70 years old and yet still in limited service around the world.

For military aircraft, the P-3 Orion is one of those hard to improve upon types that continue to excel at what it was designed to do. Highly valued for its endurance, speed, and mission capability, this maritime patrol/sub hunter has been the mainstay of the US VP community, and those of many other nations, for better than 40 years. In its many variants - not to mention the offshoot Canadian Aurora which was based primarily on the it – it remains amongst the very best in its class, and the versatility of it's design is hard to discount. The Orion has served in many roles outside its original concept, including electronic warfare, hurricane hunting, and transport. Only due to its extreme age did the US decide to start looking for a replacement. As of yet, a successor has yet to take the reigns from this winning design.

It seems only natural that several freeware add-ons based on this aircraft have come along over the years. The respected designers of FS KBT are the latest to try, and in their rendition, they have opted to concentrate their efforts on the current mainline model – the P-3C.

## Installation and Documentation

KBT's Orion can be downloaded directly from their [website](#). Two independent links are available, one in Japanese, and the other in English. Other than language, the two links are identical in respect to the software that is being downloaded, so nothing is missed if you only go with one.

The heart of the zipped file is a single 70MB executable file; once unzipped into your directory of choice, all one has to do is double-click it to run a painless installation that sends all necessary contents to the appropriate FS2004 directories, always a good thing. Once installed, the user will have his or her choice of the following subhunters in either Virtual Cockpit (VC) or No Virtual Cockpit (NOVC):

- USN – VP9 'Screaming Eagles' and VP-47 'Golden Swordsmen',
- JMSDF – 203rd Kokutai and 3rd Kokutai (old and new colors)
- Canada – 415 (MP) Sqn
- Royal Netherland Navy – PUMA (old colors)
- 

Also contained within is a file for VC lighting (to be sent directly to the EFFECTS folder), some add-on data for those who use FS Nav (which I do not), and the usual Readme file. Perhaps the nicest goody of all - at least for those experienced and soon-to-be-experienced repainters out there – is a Paint Kit, all set and ready for your virtual paintbrush.

## External Model

| Test System   |
|---|
| Win XP Home<br>Intel P4 3.2MHz<br>1 GB ram<br>ATI Radeon X300SE PCI<br>Express<br>Soundblaster Audigy |
| <b>Flying Time:</b><br>15+ hours  |

KBT is well known for its stunning graphical representation of the aircraft it models, and the Orion is no exception. The visual model of their P-3C is just something to behold, accurately rendered right down to the smallest details. Those who have spent any amount of time with this bird will appreciate how well KBT did on the external model, recognizing the small things that the developers took the time to include, such as the integral air stair that folds up just inside the main door.

Now purists might step forward to state that the US Orions differed from those of other nations, such as the CP-140 Aurora (Canada's subhunter, fitted with the same sensor suite found on the S-3 Viking). While this fact is true, it is usually limited to antenna and sonobuoy ejector port configurations, and the discrepancies are small enough to where it will make a difference only to the most discriminating eye.

Airstair and Bomb Bays and Door ...  
oh my!

What enemy subs hate the most  
about the Orion.

A hunter in the dark. The night  
textures are excellent.

Color schemes and markings for each individual version appear accurate, and while some have noted that they seem a bit too glossy, it's for the most part a fact. The Tactical Paint Scheme used by the US Navy in the 80s and 90s was dropped in favor of a more glossy version at the turn of the century, the blue and gray scheme of the Netherlands was that shiny (they appear to have changed it somewhat recently), and you'd expect nothing less from the scrupulously cleaned and polished surfaces of a aircraft of the Japanese Maritime Self Defense Forces. Canada's Auroras are the only exception to the rule, at least according to my research.

## Panels and VC

The cockpit is representative of an aircraft born in the 60s. In the real world, some operators have decided to start refitting their Orions with more up to date instrumentation such as EFIS, but one will not find it here. I would personally place the cockpit design of KBT's P-3C sometime in the eighties, when steam gauges were still the norm and the radar scope was about the fanciest looking display mounted forward of the flight deck entrance.

Other than the fact that the 2D provides the user with all the info needed to fly, there isn't much else to say. Virtual Cockpit is where it's at in this add-on, and I extend my sympathies to those who are unable to indulge in it. There's nothing better than VC for getting the most out of the 'as-close-as-sitting-in-the-real-thing' experience.

You decide....2D cockpit....

...or the VC cockpit?

If you like the VC at day, try it at night

The VC of KBT's Orion is a virtual clone to the real thing, right down to the orange mesh on the seat headrests (and for once, someone created a mesh that you can actually see through) or the evacuation placard on the window sill. Run a quick web search for pictures of the Orion's flight deck and you just might gasp at the similarities. What inaccuracies do exist are some misplaced flight instruments and interactive controls, but there aren't many and their easily forgivable.

Other than that, the VC gauges are easy to read, and flying from this mode is in some ways easier than from 2D. This is especially true for landings, when the large 2D panel forces the user to Shift+Enter the airport back into view.

You'll learn to appreciate this window.

KBT provided four pop-up windows for the user, including GPS, Engine Instrumentation Panel, Throttle Quadrant, and a Multi-Function Control Panel. Of these, the last is the most useful, containing light controls, autopilot, radios, and a Flight Info Display. The last is the equivalent of a MFD, allowing the user to select various modes to determine such information as wind, fuel burn/endurance, navigational data, and the like.

## Flight Model

The KBT Orion's handling is excellent. Only a couple discrepancies were found.

Some of you who have already taken this plane up might field the complaint that she has too much power, resulting in shorter-than-average takeoff rolls and rocket-like climbs. The problem isn't incorrect modeling of the power output of those T-56 Allison's, but a very light aircraft. Check out the FUEL AND PAYLOAD window and you'll see that the aircraft is devoid of any payload – all you have is the empty aircraft and any gas in the tanks. Throw in some weight and the model will respond accordingly.

Even with a good sized load, the Orion still has the power to impress

Whether weighed down or not, you'll find that KBT's Orion is a joy to fly, with performance that seems to match the rides I had the pleasure of experiencing. She's inherently stable and responds to inputs like an aircraft of her size should. Add in a surprising reserve of power (a LOT of power), she'll get you going somewhere very quickly. I found no difficulty in hand-flying the P-3C. She's a predictable, smooth flying machine, with few vices that might catch you unaware.

Once the throttles are thrown forward, the Orion accelerates briskly. A fully laden Orion needs roughly 4,500 or so feet of runway for takeoff, and KBT's modeling is somewhere in this ballpark. She'll break ground somewhere around 135 kts at normal loads with 35% flap setting. On the other end of the stick, the P-3C comes in nicely on the approach at 130 – 135 kts, and on the flare, she'll finally quit flying at the 120 kts range. This is the only speed I have been able to check on as RPM (or some other engine parameter) is used to determine when to lift the nose gear off the ground on takeoff. As for that stall speed, a check against an old P-3C Update II Standard Aircraft Characteristics manual puts it almost right on the dot! About the only bad thing I can say for certain is that I remember real-world Orions come in on approach slightly nose low. In the case of KBT's, she needs to be brought in slightly nose high or she'll sink excessively.

Once airborne, she likes to stay that way – I cannot stress enough that those Allison's really put out some smash! In my tests, I pulled on the yoke for all it was worth, finally losing airspeed when the ADI closed in on 30 degrees nose up. Orion's possess so much power that shutting down an engine to extend on-station endurance is standard practice while on patrol.

Yes... that stopped engine is actually a good thing for an Orion.

The Orion likes to stay wings level. Want proof? Go ahead and drop a wing in a standard rate turn, then center up the controls. The plane will immediately start to roll back to level at a fair clip. I cannot verify if the real thing behaves like this; I never had the pleasure of being an Orion pilot (my 3 minutes under the watchful eye of the MC doesn't count), but it isn't hard to visualize a plane that was based off of an airliner and designed from the start to loiter for long periods of time behaving in this manner.

Puzzling, however, is the sluggishness of KBT's Orion on the ground. Any good pilot will tell you to stay ahead of the aircraft, but this one really forces the issue even when on the ground at normal taxi speeds. Twist that stick/ push that pedal/hit that key, and the Orion is not only slow to respond, but has you wondering for a couple seconds if she ever will. I do suppose that this lag could be the simulated time it takes to twist that tiller, but it's disconcerting nonetheless. Short of using differential braking (which actually irons this kink out rather well), a lot of practice and a little technique are just about the only ways to overcome it.

Get some practice in before making  
that left turn.

## Sound

At least in my opinion, the single biggest strength of the KBT Orion is the sound package. The engines of P-3s and the four-bladed variety C-130s have a very distinctive growl, and KBT has nailed it right on the money. Hearing it, especially in the spot-camera view mode, brought back a flood of memories for me of the good 'ol days of working around and flying on this aircraft. Crank up the volume with the engines starting, running, and shutting down and you are about as close as you can get to sitting on flight line with the actual deal. Any Orion fan will be grateful for the efforts of the developers to get this facet right.

Engines on or off, one is also treated to the rather loud whine of the APU. While I personally could do without it, the volume isn't that far off if memory serves. The APU was mounted in the fuselage just aft of the forward wheel well, close enough to where the noise of the exhaust door opening and closing was clearly audible in the cockpit. What more so with a small miniature jet engine screaming at full power?

## Summary

The five out of five rating is reserved for only the very best add-ons, denoting an exceptional piece of work that goes well beyond doing justice to the subject aircraft, and from I've seen and what I know, KBT's P-3C makes the grade. It is an outstanding piece of work, reflecting careful effort on the part of the developers to get things just right. Yes, there are a couple of shortcomings, but they pale in comparison with the remaining 98% of the package that happens to be spot on. That this add-on was free more than makes up for the deficiencies.

The Orion should make a great addition to any turboprop fan's fleet, and for die-hard Orion fans, it's a must. This is certainly the best rendition of the type out there for FS2004 bar none. Even if you're not one, the caliber of the package plus the price begs that you at least try her out. Once again, this is freeware! Great visuals, great handling, and superb sounds, all for the bargain basement price of zero dollars and zero cents! You can't beat that.

One last note – It appears that KBT is planning to release further variants of the Orion. The one confirmed variant being worked on at this time is the P-3C Update III.

Add another victory mark for the people at KBT. Well done!

### What I Like About The P3 Orion

- Just about everything!

### **What I Don't Like About The P3 Orion**

- You can't drop any of the torpedoes, but in FS2004, we're not supposed to do that anyway.

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