# The Alaska Power Project

By Thomas Menzel and Doug Linn



**WELCOME** to the Alaska Power Project, a FREEware offering by Return to Misty Moorings (RTMM), featuring many of the Hydroelectric Plants, in the RTMM area. We have attempted to make these locations as realistic as we can. All of the locations are either "real and operating" or are "proposed to be built." There are 15 locations in the completed project. You will need ORBX SAK and PFJ and must install the <u>RTMM Object Libraries</u>.

### Features of the RTMM APP FREEware:

- **Installation:** A single folder for installation of all (*except one, PP09-Whitman Lake Hydro\**) of the hydroelectric plants and associated facilities.
- **APP Library**: A special library that has all of the latest (new) objects in it for the project.
- **Realism:** All of the locations are either "real and operating" or are "proposed and under construction". All locations are geographically correct.
- Helipads everywhere! Because of the physical layout of these facilities, there are usually two (or more) key locations. One is the actual plant, the other is the "dam" or "reservoir". These are perfect for exploration by helicopter.
- Float Planes: We have created parking and landing for float planes at all of the sites. Often, you can land above the plant at the reservoir and often there is a dock at the plant site. "Visual Tips" This concept helps pilots slew to see things only seen by helicopters. The pilot stops at a point, moves into slew mode, follows the virtual tour, then is returned to the original stopping point so s/he can continue with the journey.
- Attention to Detail: You may want to get out your ultra lite or Segway to check out some of the details of these locations at ground level. We have tried to make them detailed enough to be enjoyed from ground level and exploring. Unlike many other RTMM scenery locations, these needed very special terrain configuration to be realistic for actual hydroelectric operations.
- Links for Hydroelectric Knowledge: We have added several informative/educational links on the APP web page so you can learn more about hydroelectric power.
- **Plant Descriptions:** For each of the locations, there is a short description of the plant itself and related information.
- **Starting Positions:** We are designating "PPxx" for the starting positions for all but one\*\* of the plants. You can use the "Go to Airport" in your sim by adding in either the name of the plant or the "PPxx" number for it (all listed for each location). These give you starting points for the docks, helipads and runway starts.
- FSX/DX10/P3D Ready Using RTMM Objects libraries, all objects work in all three simulator formats.

KMZ Google Map: There is a KMZ file for the Alaska Power Project, listing all of the facilities and giving information on each of them. You can find the KMZ file <u>HERE</u>. When you download the file, check the "APP" box and all of the plants will show for you. Our thanks to Vüqar Quliyev for this contribution.

\*\* PP03, Snettisham is already at airport 7AK2, so the starting points are for 7AK2.
Pictures of Sites: As with all RTMM locations, there are pictures of the various sites on the scenery download area. Click on the thumbnail on the web page to see a larger picture of the facility.

\* PP09-Whitman Lake Hydro is NOT compatible with PAKT Payware, so this is a separate download.

- **Dispatches:** These are instructions for short trips that take the operator to the many hydroelectric sites. There are two parts, one for helicopters and one for float planes.
  - Helicopters ... detailed instructions for approaching, hovering and taking off the many helipads at the hydro plants.
  - Float Planes ... here-to-there instructions on going to the hydro plants plus a "virtual tips:" section for each to allow a float plane pilot to stop and "slew around" to see things you could only see from a helicopter. Then the operator is brought back to the original position before he started the slew maneuver.
  - A PDF can be printed for any/all of the dispatches.

## Background:

**Concept:** The original concept for adding hydroelectric plants to RTMM came from Thomas Menzel who suggest this as an addition for RTMM. After some exploration, it was decided by the team that this would be an interesting addition. Thomas and Doug Linn took on the project, Thomas building the "existing/operation" plants and Doug building the "proposed" plants. Thomas also became a part of the RTMM team during this project, we thank him for his efforts and expertise.

**Open Beta:** We decided to make it a "open beta" project for RTMM fans from the beginning. This allowed the community (if they were interested) to weigh in on errors, make suggestions, etc. Anyone could download the "APP.zip" folder and install APP. When we made corrections, they were noted in the APP Construction Log and a new zip with the corrections was uploaded for people to download. (They had to delete the previous folder in their sim and add this new one). We decided to "keep" the construction log as an historical part of the project and web page. It is now on the 'bottom' of the web page so people can see the effort that went into this and the many corrections and adjustments we had to make.

### What we Learned:

 Unlike placing a cabin and a canoe, creating an "operational" and physically correct power plant took a little more effort than we had initially imagined. The elevations are critical to these projects (that's how hydroelectric power works). In some locations, the elevations had the project running "up hill" rather then "down hill" as required by the physics. (Thayer Creek is a good example). We had to adjust the terrain to make sure everything flowed "down" from the *upper* head reservoir to the *lower* plant.

- Helipad Placement: Often we had to place a helipad on a dam we had constructed or upon terrain composed of "objects." Too often, when you would create a "starting position" for such a helipad, the aircraft would start "under" the helipad at ground level. We had to learn how to make those starting positions work. (We put the "how to" under ADE on the new "Designer's Corner" web page. We wanted to capture what we learned on this new web page).
- Placing a stream: Although IS3 has a nice feature of allowing you to make a stream or river, when there is significant elevation involved, it does not work. You either get a canyon or an "elevated highway" for the stream. For these we had to use Sbuilder. In some instances, the elevation points had to be added manually (hundreds of them!). In another case, (Triangle Lake), we learned how to use the terrain already there to let the elevations be "automatic". This also was captured and put into the Designer's Corner web page.
- XML Files for Fuel, Windsocks, etc: Because we used the XML files so often to place windsocks, fuel triggers, etc. We decided to document the "how to" on the new Designer's Corner web page so we could quickly use those references when we needed them.
- **Objects can "respond" differently to Altitude:** Some objects that we placed responded differently when they were placed at "altitude". We also found some of the helipad objects allow the landing gear of the aircraft to "sink" into the surface of the pad. We noted this in the "Known Issues" in the installation section of the Web Page.
- **Community Help:** We also learned the RTMM community responded very well to helping us create/build this project. (Thank you to all of you who participated!).
- **New Objects:** On several occasions, we needed new objects to make the scenery location become more realistic. Steve Weinkamer created some of these new objects as the project grew. This includes new signage, a new "work boat" and many crane objects for the construction areas. These are all in a new RTMM APP TEMP library that is downloaded at the site. (Thank you Steve).
- **Designer's Corner Web Page:** As mentioned several times above, we created a new web page to "capture" our lessons-learned. It is far from complete, but will become a good reference point for our team. It can be found <u>HERE</u>.

**Summary:** Although one of the more difficult projects RTMM has attempted, this one made some of us "stretch" a little on the learning curve. We hope people won't only see this as a "get-to-have-and-move-on" download. There is some education involved in this one and people can actually see how there facilities are set up to work. This was an "open" project, available to be downloaded by fans while we were constructing it. There is a Construction Log at the bottom of the page that demonstrates all the changes that were made during the project.

And of course, these facilities are almost all in remote and beautiful locations. So for the "sight seeing" fans, this is not just an "industrial" education, it can make for some beautiful flying and location-exploring. We hope you enjoy the Alaska Power Project.

Thomas and Doug

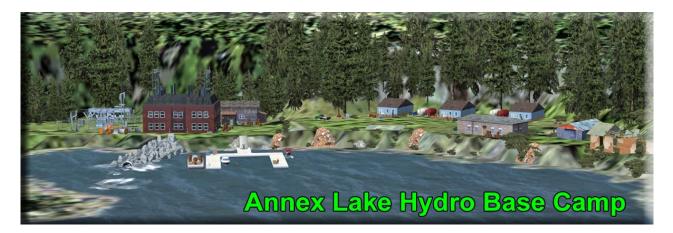
Some Screen shots of the Alaska Power Project:













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