Author(s): Marina Kolosova: "'ALA'-a 'Flying Saucer' for the Builders"

Headline: 'Flying Saucer' to Aid in Construction Projects

Source Line: 934A0224A Moscow NOVAYA STROITELNAYA GAZETA in Russian 29 Sep 92 p 13

Subslug: [Article by Marina Kolosova: "'ALA'-a 'Flying Saucer' for the Builders"]

FULL TEXT OF ARTICLE:

1. [Article by Marina Kolosova: "'ALA'-a 'Flying Saucer' for the Builders"]

2. [Text] The first information about an unusual 'flying saucer'-an aerostat aircraft-that appeared in STROITELNAYA GAZETA caused much interest among our readers. And so we decided to turn to the Deputy Chief Designer on Economic Problems of the Termoplan KB [Design Bureau] of MAI [Moscow Aviation Institute], Igor Starostin, with a request to describe its brainchild in greater detail.

3. "The 'ALA-600' [aerostat aircraft-600] is being developed in accordance with an order from the 'Gazprom' concern, the 'Rosneftegazprom' corporation, and other organizations of the fuel-and-power complex. The KB is under the leadership of Academician Yu. Ryzhkov and Chief Designer Yu. Ishkov. The craft is capable of supporting construction work and buildup of the facilities of all enterprises that are extracting resources in the North, the Far East, and any place difficult of access, with maximum effectiveness. Supermodule-type construction can be performed with the ALA-600's help. The operating principle here is simple: large-dimension constructional structure or construction modules that are assembled on the ground and weigh up to 600 tonnes are lifted and transported to and installed in the place required, the craft being capable of covering up to 5,000 kilometers without landing, while developing a speed of up to 200 kilometers per hour."

4. It can also be used in the buildup of oilfield facilities and in operation of the oil and gas recovery industry's facilities. When developing new wells, the drillers will not need to spend a great part of their time in disassembling, moving, and assembling equipment, which the existing technology requires now. The ALA-200...
will move the equipment that must be transported—the whole platform with the drilling installation and auxiliary structures—in assembled form from place to place. Consider how much money and effort will be saved in this case and how many hectares of forest will be left untouched. The amount of fuel raw material recovered will be greatly increased, and the time spent assimilating a new well will be cut by a half to two-thirds.

5. Expenditures for the transporting and assembling operations and containerized freight hauling that the "flying saucer" will perform will be cut severalfold. Another example: when rebuilding metallurgical enterprises, new furnaces must be installed to replace older ones. Today this very complicated technological operation requires enormous cost. Billions of rubles will be saved if this operation is entrusted to our aerostat aircraft.

6. Its potential uses are vast and in the most varied fields. These include transport services during emergency and rescue operations, and tourism. The "Termoplan" Design Bureau, jointly with Svyatoslav Fedorov's eye center, is developing a new type of building, with autonomous power and water supply systems, the constructional structure of which will enable it to be transported over various distances and to be used as a surgical unit, a hotel complex, or a store. The use of such modules will enable a unique technology for tourism to be developed. Then, for example, foreign guests who have been hunting for the famous Russian bears on the streets of our capitals will be able to encounter them in the taiga. For this purpose the ALA craft will deliver a multiple-star hotel module in this manner to the Yenisey, in the impassable taiga. And, perhaps, you will relax with Western comfort in dense exotica.

7. But seriously, for example, a hospital module, stuffed with modern equipment, can be transported to the most inaccessible places. People get sick, as is well known, not just in big cities, and the problem of extending skilled medical care to our wilderness sites still remains insurmountable.

8. But as yet these are dreams. At present, an experimental model with a disk diameter of about 40 meters has been built at "Aviastar," Ulyanovsk's joint-stock company. For comparison, the ALA-600 will have a disk about 200 meters in diameter.

9. As Igor Starostin said, the uniqueness of this transport resource lies, first, in its load-lifting capacity; second, in its ecological cleanliness, for the craft will use phlegmatized (that is, explosion-proof) hydrogen, which plays the role of gas filler and fuel simultaneously. And, third, thanks to its independence of airfield service, the craft does not require airports with
multikilometer concrete landing and takeoff strips. And "flying saucers" that are not in operation will "rest" in the air and be tied down with cables. The equipment will descend to the ground only when required for repair.

10. The first stage of design testing on the ground and technological refinements on the captive model will be completed at the end of autumn. For simplicity, not only various components and assemblies but also all the systems of constructional structure and equipment have been checked, in wind gusts that reached up to 15 meters per second. The tests confirmed the designers' analyses in all the most important design solutions. The second stage of the tests lies ahead.

11. It is to be hoped that both the sky, with its unforeseeable "considerations," and the state will treat the "flying saucer" kindly.