



BELUGA TRANSPORT OPTIONS

Russia to United States

Option A – CURRENT PLAN OUTLINED IN THE PERMIT APPLICATION

Option B – THREE TRANSPORTS ANAPA TO U.S. VIA LIEGE, BELGIUM

Option B is similar to option A with the following revisions.

- The animals will be transported to the United States in three groups of six whales via three separate transport operations that will occur on different dates.
- The transfer of the whales from Russian transport equipment to U.S. transport units will take place at the Anapa Airport.
- Scientists from the Utrish Marine Station (UMS) will be responsible for the movement of the animals from UMS to Anapa Airport, Russia. Upon the whales arrival at Anapa Airport, Georgia Aquarium will assume responsibility for the remainder of the transport operation to the United States.
- Only 3 animals will be transported per IL-76 aircraft due to the increased weight of U.S. transport units. Upon landing in Liege, each whale /U.S. transport unit will be transferred from the IL-76 aircraft to a wide bodied aircraft (without the need to place the animals into different transport units).
- Belugas will be flown to U.S. destinations (Atlanta, Orlando, San Antonio, Chicago, San Diego).
 - a. Anapa to Chicago, then on to San Diego.
 - b. Anapa to Atlanta, then on to Orlando.
 - c. Anapa to San Antonio.
- Total estimated transport time is reduced by an estimated 3-5 hours from Option A due to handling a smaller number of animals during each transport process.

Option C – THREE TRANSPORTS ANAPA TO U.S. USING IL-76 AIRCRAFT ONLY

In Option C, the animals will be transported to the United States in three groups of six whales via three separate transport operations that will occur on different dates. Scientists from the Utrish Marine Station (UMS) will be responsible for the movement of the animals from UMS to Anapa Airport, Russia. Upon the whales arrival at Anapa Airport, Georgia Aquarium will assume

responsibility for the remainder of the transport operation to the United States. The following list outlines the steps planned to execute the transport.

1. For each of the three transports, six animals will be transported via truck from the UMS to Anapa Airport in Russian transport units.
2. At Anapa Airport, the whales will be removed from the Russian transport units, transferred to U.S. transport units, and loaded into two IL-76 ICAO approved aircraft to fly to the U.S.
3. Each IL-76 will have three animals and at least 4 attendants per plane.
4. The belugas will be flown to U.S. destinations (Atlanta, Orlando, San Antonio, Chicago, San Diego) with multiple fuel stops required because of the increased weight of U.S. transport units, pressurization requirements that result in flying at lower altitudes, and aircraft engine efficiency.
 - a. Anapa to Chicago – fuel stops at Prestwick, Scotland and Goose Bay, Canada.
 - b. Anapa to Atlanta – fuel stops at Prestwick, Scotland and Gander, Canada.
 - c. Anapa to Orlando – fuel stops at Prestwick, Scotland and Gander, Canada.
 - d. Anapa to San Antonio – fuel stops at Prestwick, Scotland; Gander, Canada; and Bangor, Maine.
 - e. Anapa to San Diego – fuel stops at Prestwick, Scotland; Goose Bay, Canada); and Minneapolis, Minnesota.
5. Upon arrival at the U.S. airports, the whales will be off loaded and truck transferred to the respective facility (Georgia Aquarium, Shedd Aquarium, Sea World).
6. Total approximate transport time pool to pool: ~35-43 hours.

Option D – THREE TRANSPORTS ANAPA TO U.S. USING MD-11 AIRCRAFT

At this time it is unclear if Option D can be implemented because the Anapa Airport runway may not be appropriately sized to accommodate an MD-11. Additionally, loading equipment for an MD-11 is not available at this Airport. Nevertheless, this is an option Georgia Aquarium has investigated and will continue to investigate. The issues are whether an MD-11 can be accommodated at the Anapa airport; there is an MD-11 with the payload, range, and attendant capacity with clearance to operate from Anapa, Russia; and whether appropriate loading equipment can be relocated to Anapa to support loading of the aircraft. If these significant logistics are deemed possible, it would allow for a direct transport of the whales from Anapa to the U.S. with a reduced estimated transport time.

Option D is similar to Option C with the following revisions.

- This option utilizes one MD-11 aircraft from Anapa to the U.S. rather than two Russian IL-76 aircraft.
 - MD-11s are larger, faster, more efficient wide bodied airframes whose use will reduce flight time from the IL-76 option, principally by reducing the number of fuel stops en route to the U.S.

- For each of the three transports, six whales will fly from Anapa to the U.S. on one MD-11 aircraft with 12 attendants.
- The belugas will be flown directly to U.S. destinations (Atlanta, Orlando, San Antonio, Chicago, and San Diego).
 - a. Anapa to Chicago (fuel stop at Keflavik, Iceland), then on to San Diego.
 - b. Anapa to Atlanta (fuel stop at Keflavik, Iceland), then on to Orlando.
 - c. Anapa to San Antonio (fuel stop at Keflavik, Iceland).
- Total estimated transport time will be:
 - Reduced by an estimated 3-5 hours from Option A due to handling a smaller number of animals during each transport process and not requiring a transfer of Aircraft or transport units in Liege, Belgium.
 - Similar to Option B notwithstanding the fact that there will not be an aircraft transfer in Liege, Belgium because there will be more significant ground operations in Anapa to load an aircraft at an airport that is not accustomed to handling such planes.
 - Significantly less than Option C due to the use of faster and more efficient aircraft, as well as only a single fuel stop en route to US.

Note:

- For all transport options a team of professionals from Georgia Aquarium and colleague institutions highly experienced in cetacean transport will be assembled and lead by the Georgia Aquarium Zoological Team. Appropriate sized teams will be in place on the ground in Russia, on all international and domestic flights, and on the ground at each destination in the U.S.
- If it is determined appropriate to change the transport plan to Options B, C or D, the number of animals going to each U.S. facility may be changed slightly to allow each transport to deliver animals to no more than two institutions. This will be done in the best interests of the animals to minimize transport time.

CONTINGENCY PLANS

- Prior to the start of transport, weather conditions will be checked at all locations of the transport itinerary. If weather projections are not conducive to a safe and efficient transport, the transport operation will be delayed.
- In the event of an aircraft and/or logistical issue prohibiting takeoff from Anapa, a replacement aircraft will be located and, if available and within three hours of Anapa, it will be dispatched to Anapa and the transport will continue. If a replacement aircraft is not immediately available or if it cannot be dispatched to Anapa within three hours, the animals will be returned to Utrish Marine Station and a new transport set for an alternative date.

- For Options A and B, should there be an aircraft or logistical issue prohibiting takeoff of any aircraft in Liege, a replacement aircraft will be located and, if available and within three hours of Liege, it will be dispatched to Liege and the transport will continue. If there are problems prohibiting the replacement aircraft or the transit time for the aircraft to arrive in Liege is unacceptable, the animals will be returned to Anapa via IL-76 aircraft and then returned to Utrish Marine Station and a new transport set for an alternative date.
- For Option C, an additional transport aircraft with necessary payload capacity and attendant requirements (i.e. IL-76, MD-11, or B-747) will be chartered and positioned in Prestwick, Scotland and utilized as a contingency aircraft in the event of an aircraft issue in Prestwick, Goose Bay, or Gander. Should there be an aircraft or logistical issue prohibiting takeoff of any aircraft in Bangor, Maine, a replacement aircraft will be located and, if available and within three hours of Bangor, it will be dispatched to Bangor and the transport will continue. If there are problems prohibiting the replacement aircraft to arrive in Bangor or the transit time for the aircraft to arrive in Bangor is unacceptable, the animals will be truck transported to Mystic Aquarium until such time as it is suitable to move them to their final destination. Trucks will be pre-arranged, positioned in Bangor, and available immediately upon request.
- For Option D, an additional transport aircraft with necessary payload capacity and attendant requirements (i.e. MD-11 or B-747) will be chartered and positioned in Keflavik, Iceland and utilized as a contingency aircraft in the event of an aircraft issue in Iceland.
- Should there be a significant issue in Atlanta or Chicago prohibiting animals going to Orlando, San Diego, or San Antonio respectively, the animals destined for these facilities will be moved to Georgia Aquarium or Shedd Aquarium until the logistical issues are resolved and it is suitable to move the animals to their final destination.