

Aircanoes

This worksheet helped Nisi keep track of various characteristics of Everfair's aircanoe fleet. Spoilers contained; it's included here as a reference for those who've read the book.

1897 **Mbuza** - The first Everfair aircanoe built, *Mbuza's* original gondola was basically a big, canoe-shaped basket with the capacity to hold up to 30 crew along with its publicly acknowledged cargos of trade goods. The open design of the gondola limited its usual cruising altitude to roughly 1000 feet--it could go higher (to a peak altitude of 6000 feet), but at the expense of crew and passenger comfort. In 1902 *Mbuza* was retrofitted for military use with a larger yet lighter gondola capable of holding roughly 250 crew and passengers sans freight, or 200 with. In 1908 that gondola was permanently redesigned as largely cargo space, with small quarters for crew and extremely limited passenger accommodations. Returned to military service in 1915 with no substantial changes other than "armoring": lightweight, high mass bullet baffles of thorn bushes. Enclosed gondola installed postwar, in 1918.

Mbuza's first semi-rigid envelope had a length of 500 feet and a diameter of 40 feet; it was replaced in 1900 with one measuring 600 feet long with a 67 foot diameter. Capable of traveling up to 60 mph with favorable winds, *Mbuza* normally flew 40 to 45 mph.

1898 **Zi Ru** - Much the same specifications and history as *Mbuza*. Enclosed gondola installed postwar, in 1918.

1899 **Fu Hao** - Much the same specifications and history as *Mbuza* and *Zi Ru*. Enclosed gondola installed postwar, in 1918.

1902 **Boadicea** - Built as a military transport, *Boadicea* could carry 250 crew and passengers plus some freight--weapons and ammunition and medical supplies. 1915 retrofitting included "armoring": lightweight, high mass bullet baffles of thorn bushes. Its envelope was 700 feet in length and 100 in diameter. Cruising altitude was 1500 feet, with a maximum of 8500. Cruising speed was 55, with a max of 70.

1903 **Brigid** - Built as a military transport, *Brigid* could carry 250 crew and passengers plus some freight--weapons, ammunition, and medical supplies. 1915 retrofitting included "armoring": lightweight, high mass bullet baffles of thorn bushes. Its envelope was 700 feet in length and 100 in diameter. Cruising altitude was 1500 feet, with a maximum of 8500. Cruising speed was 55, with a max of 70.

- 1903 **Kalala** - Built as a military craft, *Kalala* could carry 80 crew and passengers plus some freight--weapons, ammunition, and medical supplies. Its primary advantages were speed and maneuverability. Crashed and lost during Everfair's final major engagement with Leopold in 1904.
- 1903 **aMileng** - Built as a military craft, *aMileng* could carry 80 crew and passengers plus some freight--weapons, ammunition, and medical supplies. Its primary advantages were light weight, speed, and maneuverability. 1915 retrofitting included "armoring": lightweight, high mass bullet baffles of thorn bushes.
- 1904 **Phillis Wheatley** - Built as a military craft, *Phillis Wheatley* could carry 80 crew and passengers plus some freight--weapons, ammunition, and medical supplies. Its primary advantages were light weight, speed, and maneuverability. 1915 retrofitting included "armoring": lightweight, high mass bullet baffles of thorn bushes.
- 1910 **Okondo** - Built primarily to carry freight, *Okondo* could accommodate up to 20 crew and about the same number in passengers. 1915 retrofitting included "armoring": lightweight, high mass bullet baffles of thorn bushes. In 1913 an experimental enclosed gondola was attached.

1914 **Amazing Grace** - Built as a utility vessel, *Amazing Grace* had carrying capacity for up to 150 crew and passengers, with the ability to accommodate freight and many fewer crew and passengers--as few as 20--with very little temporary refitting. Its original gondola was closed, and its peak altitude and usual cruising altitude correspondingly higher (7000 and 2500 respectively). Innovations included "armoring": lightweight, high mass bullet baffles of thorn bushes.

1914 **Kalala II** - Built as a military craft intended to replace the original *Kalala*, *Kalala II* had an identical crew and passenger carrying capacity of 80, but with a small additional separate hold for freight. This very slightly increased its weight and reduced its maneuverability and speed, but these were still superior to the maneuverability and speed of the larger *Okondo* and the older *Mbuza*, *Zi Ru*, and *Fu Hao*. Its original gondola was closed, and its peak altitude and usual cruising altitude correspondingly higher (7000 and 2500 feet respectively). Innovations included "armoring": lightweight, high mass bullet baffles of thorn bushes.

1915 **Lukeni** - Built as a military craft along the lines of *Kalala II*, *Lukeni* also had a crew and passenger carrying capacity of 80, but with a small additional separate hold for freight. This of course increased

its weight and reduced its maneuverability and speed very slightly, but as with *Kalala II* they were still superior to the maneuverability and speed of the larger *Okondo* and the older *Mbuza*, *Zi Ru*, and *Fu Hao*. Its original gondola was closed, and its peak altitude and usual cruising altitude correspondingly higher (7000 and 2500 feet respectively). Innovations included "armoring": lightweight, high mass bullet baffles of thorn bushes.

1915 ***Omukama*** - Built as a utility vessel, *Omukama* had carrying capacity for up to 150 crew and passengers, with the ability to accommodate freight and many fewer crew and passengers--as few as 20--with very little temporary refitting. Its earliest use was primarily military in nature. Its original gondola was closed, and its peak altitude and usual cruising altitude correspondingly higher (7000 and 2500 feet respectively). Innovations included "armoring": lightweight, high mass bullet baffles of thorn bushes.

FOR COMPARISON

HINDENBURG (rigid, 1936)

Length: 803.8 feet

Diameter: 135.1 feet

Gas capacity: 7,062,000 cubic feet

Lift: 511,500 lbs

Cruising Speed: 76 mph

Maximum Speed: 84 mph

GRAF (rigid, 1928)

Length: 776 feet

Diameter: 100 feet

Gas capacity: 3,707,550 cubic feet (2,648,585 cu. hydrogen for lift,
1,059,435 cu. Blaugas for fuel)

Lift: 191,799 lbs

Speed: 80 MPH

ZEPPELIN 1 (rigid, 1900)

Length: 420 feet

Diameter: 38.5 feet

Gas capacity: 399,000 cubic feet