MOBILE AIR TRAFFIC
CONTROL TOWER

DF Núcleo has almost 40 years of experience in the design and manufacture of mobile air traffic control towers for both civilian and military use. The equipment comprises an ATC (Air Traffic Control) Cabin installed on a transport platform. This cabin contains the systems that support ATC within the ATZ (Aerodrome Traffic Zone) and CTR (Controlled Traffic Region) sectors.

Comprehensive air traffic control solution
The mobile control tower has the same capabilities as a fixed control tower. Control is carried out through ground/ground and ground/air communication units by radio, on VHF, UHF and/or HF frequencies. It also allows the establishment of telephone communication between different ATC dependencies.

At the heart of the control tower is the ULISES V 5000i VoIP VCS, designed and developed in its entirety by DF Núcleo, which allows a certain number of users (controllers or operators) to access a group of means of communication, such as telephone lines and radio channels.

Reduced and sustainable investment
The intensive use of COTS elements and platforms, and the definition and design of a made-to-measure tower for each client and project allows the cost to be kept down while providing all necessary capabilities for managing airport communications.

Applications
• Emergency in the fixed control tower.
• Temporary interruption of fixed control tower operations.
• Tactical deployments.
• Air shows.
• Situations that require the preparation of a specific area as an emergency airport.
• Traffic control on offshore platforms.
• ATC training simulator operating in parallel with a fixed tower.
Mobile, robust and reliable design

The ATC cabin is built according to the specifications and dimensions of ISO 20 (1 C) type containers, so it can be easily transported by truck, Hercules aircraft, helicopter or by road. Once installed on a heavy duty lifting trailer, only a tow vehicle is required.

The platform is fitted with a scissor lifting system with fully automated hydraulic drive. It also has two extending hydraulic systems to ensure that it remains level and stable. Underneath the platform there are auxiliary storerooms for tools, accessories and equipment or auxiliary installations. A removable metal ladder transportable with the assembly is used to access the cabin.

The entire Mobile Tower is fully autonomous, as it includes a power generation unit and an (UPS) uninterruptible power supply unit for emergency situations.

### Functional characteristics

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>VALUE</th>
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</thead>
<tbody>
<tr>
<td>Outside length</td>
<td>6,500 mm</td>
</tr>
<tr>
<td>Outside height, folded</td>
<td>4,000 mm</td>
</tr>
<tr>
<td>Outside height, unfolded</td>
<td>20,000 mm</td>
</tr>
<tr>
<td>Cabin dimensions</td>
<td>6,058 mm x 2,438 mm x 2,438 mm</td>
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<tr>
<td>Construction material</td>
<td>High-strength steel with anti-corrosion treatment</td>
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<tr>
<td>Lifting</td>
<td>Automatic by hydraulic-operated scissor mechanism</td>
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DF Núcleo delivered a Mobile Air Traffic Control Tower for the Central African zone, involving seven countries (Cameroon, Gabon, Congo, Equatorial Guinea, Chad, The Central African Republic and Niger). This tower may encompass or completely replace the operation of a fixed control tower: ULISES V5000i VoIP VCS, ground/air communication equipment on VHF, UHF and HF, synchronisation and time distribution system, recorders, meteorological system, wireless and optical fibre connection with the technical block.

The supply includes a cabin with 2 operator positions (including the trailer and hydraulic lift system), the internal equipment and the power generation unit, which guarantees the autonomy of the system.