

Providing critical infrastructure improvement for the local community

Bridging Case Study



Kokcha River, Afghanistan

Customer: ISAF | Solution: Mabey Compact 200™



The Challenge

Regional Command North, part of the NATO-led International Security Assistance Force (ISAF) in Afghanistan, is based in the city of Mazar-i-Sharif and is led by Germany.

Insurgents have been able to attack Camp Marmal with relative impunity because patrols to clear the area would have to travel many miles to the nearest river crossing. A bridge at the base would enable the NATO forces to secure the immediate area.

The Solution

It was decided that a bridge across the river near the compound would enable a more timely and effective response to insurgent attacks, but once installed, the bridge would also remain as a permanent crossing for local civilian traffic.

The Kokcha River is approximately 140 metres wide and the banks are steep sided near the base. River levels and width vary considerably according to the season and crossing is beyond the capability of the local military unit.

A 150 metre three-span Mabey Compact 200™ (Mabey C200™) bridge was selected and purchased by the German Government, which financed the overall project. The substructure (pier bases, abutments and approaches) were prepared by a local contractor. The bridge required the provision of two intermediate Mabey Logistic Support Bridge™ pier sets fixed to concrete plinths installed by the local contractor. The design loading for the bridge was Military Load Class MLC60, which was sufficient for the anticipated military patrols and the heaviest local civilian vehicles. Because of the profile of the river, the pier bases were constructed on the drier parts of the riverbed, with the spans being three unequal lengths.

Construction of the bridge was relatively straightforward and although the military engineers had never constructed a Mabey C200™ before, they soon developed the build technique with the support of the Mabey Site Advisor. The bridge weighs a total of 200 tonnes and was installed well inside the three weeks originally planned, facilitated by the by the pre-assembly carried out by the German engineers.

The Result

The new bridge over the steep sided Kokcha River in Mazar-i-Sharif not only presents a solution to the problem of security for the German-led NATO forces, but also presents a great transport infrastructure improvement for the local community, saving many miles of travel for people needing to cross the river. The Mabey C200™ is robust enough to handle the heaviest loads, but was quick and easy to install by the inexperienced German engineers.



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