



APPLICATION STORY



Genoa Pilot Corps installs FLIR thermal imaging camera on board of its vessels

A city of art and a metropolis facing the sea, Genoa grew around the port, a natural inlet that has always been a place of thriving traffic and business exchanges.

The Port of Genoa, favoured by its strategic geographic location, is placed at the centre of the important industrial and commercial area of northern Italy and southern Europe. With a trade volume of 51.6 million tonnes, it is the busiest port of Italy when measured by cargo. The Port of Genoa covers an area of about 700 hectares of land and 500 hectares on water, stretching for over 22 kilometres along the coastline, with 47 km of maritime water ways and 30 km of operative quays.

Just like any major port Genoa has a port pilot service. The Genoa Pilot Corps was founded in 1804. Since then, the Genoa port pilots are bringing large vessels safely into the Genoa harbour. The Genoa Pilot Corps provides an active service 24 hours a day and 365 days a year, covering the entire port area of Genoa, including Voltri and Multedo. They have 6 pilot vessels and currently consist of 22 members.

Guiding commercial vessels into port

With skill and surgeon-like precision port pilots bring large commercial vessels into port. The knowledge of the port pilots of their port allows them to manoeuvre

carefully and precisely huge ships in and out of harbour without accidents. They mount a commercial vessel and help the captain to navigate into port safely. The service is performed every day. In all weather conditions, day and night.

Being a port pilot does not only require maritime skills. It requires courage as well. The most dangerous part for a port pilot is getting from the pilot vessel to the commercial vessel that they need to guide into port. This needs to be done in all weather circumstances, also when the waves are high and the wind is blowing.

Equipped with a maintenance free uncooled microbolometer detector the FLIR M-324XP produces crisp thermal images.



The FLIR M-324XP has been mounted in the "ball down" position on board of the pilot boat.



The FLIR M-324XP does not need any light whatsoever to produce a crisp image. It helps the captain of the pilot boat to navigate safely.





All activity of the port pilots is being coordinated and monitored from the control tower.

The Pilot boat has to be very close to the commercial vessel in order to give the port pilot the opportunity to board. The constant banging of the two vessels against each other make this a lethal environment to be trapped in if a port pilot falls in the water.

This procedure is considered to be one of the most dangerous in the maritime world as it is possible that port pilots due to rough weather or miscalculation can end up between the pilot boat and the commercial vessel. In such an event it is of the utmost importance to find the port pilot that is floating between the two vessels or nearby as soon as possible before injury or loss of life can occur.

In the long history of the Genoa Pilot Corps this has rarely happened.



Stepping from the pilot boat to the commercial vessel that needs to be piloted is a dangerous operation. If an accident should occur a person floating in the water can be easily found, also in total darkness, with the FLIR M-324XP thermal imaging camera.

Thermal imaging for man overboard search

But the Genoa Pilot Corps is concerned about its port pilots. They do not only take every precaution to avoid accidents, they also take the necessary measures to rescue the port pilot in the event that an accident would take place.

That is exactly why they decided to put a thermal imaging camera on one of their pilot boats. If a port pilot should fall between two vessels he needs to be located as fast as possible. A thermal imaging camera can help to do this since the pilot will clearly show up in a thermal image. Once the pilot is located he can be rescued.

FLIR M-324XP thermal imaging camera

The Genoa Pilot Corps choose for the FLIR M-324XP. Equipped with a maintenance free uncooled microbolometer detector the FLIR M-324XP produces crisp thermal images of 320 x 240 pixels. Joystick operation allows the captain of the pilot boat to rotate the FLIR M-324XP 360° continuously and to tilt it +/- 90°.

The thermal images produced by the FLIR M-324XP are displayed on a dedicated screen on the bridge of the pilot boat.

The FLIR M-324XP was easily installed by one of the Italian distributors of FLIR Systems maritime products: ENAV, a competent and professional maritime electronics supplier.

More applications for the FLIR thermal imaging camera

Although the main reason for installing the FLIR M-324XP was man overboard search the Genoa Pilot Corps discovered quickly that a thermal imaging camera has more use than that in a maritime environment.

The FLIR M-324XP is almost continuously being used to help the captain of the pilot boat to navigate safely to commercial vessels. All traffic is clearly visible on a thermal image. This helps the captain to approach the commercial vessel safely.

Thermal imaging cameras do not need any light whatsoever to produce a crisp image. The FLIR M-324XP is therefore a very useful tool at night. But also during daylight. Thermal imaging cameras are not blinded by the light from the sun or reflection from the sun on the water. They can help the captain during daylight as well. Furthermore, a thermal imaging camera also sees through light fog and in practically all weather conditions.

Great user experience

The experience with the FLIR M-324XP have been great so far. The captain that is using it on his vessel is very enthusiastic. The great feedback they received about the FLIR thermal imaging camera made the Genoa Pilot Corps decide to put FLIR thermal imaging cameras on their other vessels as well.

FLIR thermal imaging cameras do not only help the Genoa Pilot Corps to navigate more safely than before, but even more important, if an accident should occur, the thermal imaging camera might help them to save lives.



The Joystick Control Unit that comes with the FLIR M-324XP gives easy access to all features of the camera. It also allows the captain of the pilot boat to rotate the FLIR M-324XP 360° continuously and to tilt it +/- 90°.

For more information about thermal imaging cameras or about this application, please contact:

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