

Flare Aerial Inspection Survey (Helicopter Fly-By)

Argo Flare Services has a vast amount of offshore and onshore flare inspection experience. Our engineers have more than 60 years combined experience of offshore flare inspections obtained with some of the North Sea's largest flare vendors.

Using the experience of Argo combined with an Aberdeen based industrial photographer, Argo Flares can offer the industry a highly effective means of flare inspection.

Helicopter Flare Surveys

By utilising a regular crew change flight costs are much reduced and the condition of your flares can easily be established before a crisis situation arises.

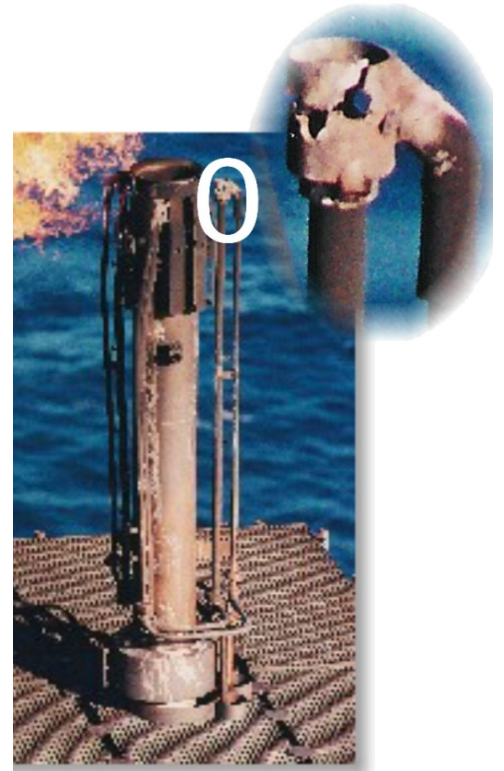
A notice of about 2 – 4 weeks allows flights to be properly scheduled and all arrangements to be finalised.

Argo has undertaken numerous helicopter flare surveys¹. Reporting on the condition of flares in this way has led to a better definition of the work required during planned shutdowns².

Our photographer uses latest professional high resolution digital SLR cameras. Additionally a video camera can be used to analyse unusual flame patterns and suspected leakages.

Operators find it beneficial to undertake an aerial flare survey approximately 6 months³ prior to a planned shutdown⁴. This allows enough time to prepare for the actual work-scope required.

Argo Flares will work closely with your engineers when reviewing the flare aerial photographs. Quality fly-by photographs can provide very effective and detailed results and can detect defects such as cracked pilot nozzles and even very minor items such as missing split pins on fasteners.



Cracked Pilot Nozzle

How it works – What you do

1. A mutually agreeable date is set for the aerial survey.
2. The client provides a return seat on a regular crew change flight and informs the flight operator that an extra flight attendant is required (this to allow the aircraft to fly with its door open for photography).
3. Argo Flares carry out a pre-flight brief with the photographer in which specific aspects to be photographed, including known trouble areas and any additional client requests, such as photos of the support structure or flare deck covering, are advised.
4. After unloading the passengers, the helicopter takes off and circles the flare at a predetermined approach and distance whilst the required photographs are taken. Typically a 20/30 minute flight time is required for photography.
5. The aircraft then lands and collects the return passengers.
6. On return the digital photographs can be emailed to the Client, Argo Flares, and any other pre-agreed recipient.
7. Photographs are individually optimised and then reviewed by Argo and, if requested, a report is produced for the client.

Argo Flare Services

Flare Aerial Inspection Survey



What you receive – The deliverables

- The photographs are supplied digitally on CD and, if required on an urgent basis, selected photographs can be emailed
- Video footage on DVD (if required)
- Sets of hard copy professional quality prints photographs (A4 or A3) can be supplied if required
- Argo Flares can provide a detailed report on the condition of the flares highlighting any possible areas of concern along with likely consequences of any failure mode. Argo can also suggest design improvements that can be incorporated into any subsequent replacement or refurbished flare to further extend the flares expected operating life
- The photographs provide a timed reference point of your flares condition. This is very useful if any problems arise in the future



Visible Crack in Flare Body

What is required – Space on a flight

- Return seats on a flight for photographer and flight attendant
- A copy of the flare GA drawing and previous photographs if available
- Service history and most recent inspection report of the flare equipment (if available)

Notes on Aerial Flare Surveys – Things to remember

1. Argo Flares have undertaken aerial flare inspections for many operators including; BP, Shell, Mærsk, Nexen, Total, CNR, Apache, Talisman, Bluewater, Wood Group, Oceaneering.
2. The aerial surveys can also be utilised for checking the condition of the flare deck/radiation shielding and upper section of the support structure.
3. Operators also use our services on a regular basis to monitor and gauge flare deterioration rates on problematic installations, or monitor dropped (or potential dropped) objects.
4. Argo can provide recommendations of anticipated scope of flare work or an indication on anticipated life expectancy of the flare.



Missing Flame Retention Lugs & Cracked Body at 12 o/c

Available Options include – Your call

- Choice on number and size of prints
- Flare Reports
- Video footage on DVD of flare in operation
- Email selected images on day of photography

For a current detailed price list, including available options and additional information please contact us.

Additional Information

Argo Flare Services is here to help, assist and support you whatever your flare requirements. If the above information does not cover your areas of concern or interest, please contact us, and we will be pleased to assist.

Other Flare Service and Inspection related activities:

- Refurbishments and upgrades of existing flares & flare systems, including ignition
- Ignition system upgrades including 'ballistic' ignition systems
- Flare studies – process, noise, radiation, flare system hydraulic analysis, etc.
- Specialist advice on flare tip change-out services by helicopter or conventional methods
- Specialist advice services for ultrasonic flare metering, flare gas recovery

To contact us please use the office details on the front page, or contact us directly on:

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- Flare System Design & Supply
- Offshore Flare Inspections
- Flare Ignition Systems
- Specialist Flare Refurbishments
- Flare Aerial Inspection Surveys
- Flare Crisis Management