



**SPECIALIST AVIATION
SOLUTIONS**

[/ www.integralrisk.global](http://www.integralrisk.global)



➔ WELCOME TO IRG

Global leaders in Specialist Aviation Solutions, IRG (Integral Risk Global) sets an unparalleled standard in delivering bespoke operational courses and equipment, disrupting the current methods of dealing with Multi-Person Helicopter Rescue and evacuation in large scale emergency situations.

Providing crews, training and equipment to government agencies, aid agencies and ISR training units, IRG's mission is to educate, facilitate and ensure that agencies are equipped and trained to meet the growing demand and expectation that lives are saved when the facilities and knowledge exists to do so.

Educate / Facilitate / Equip



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➔ INTRO TO TRAINING

Each course is developed on site to your specific operational requirements, taking account of your aircraft and the number of personnel. Operating Procedures and Training Manuals are also drafted where required.

All instructors are former UK Special Forces or UK military operatives, experienced in each specific discipline. Founder, Martin McGrath, is a former British Army Officer with a distinguished record as a helicopter pilot, fixed wing pilot and instructor supporting Special Forces operations around the world.

➔ Courses Include:

- Cargo Hook Underslung Training
- Heli-Basket® Multi-Person Helicopter Rescue
- Insertion
- Extraction
- Vehicle Interdiction



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*Gain Night Time
Operational Advantage*

*Night Vision Device
Training.
Available with all
IRG Courses.*

→ CARGO HOOK UNDERSLUNG TRAINING

An underslung load is a method for airlifting and dropping off over-sized cargo to remote areas by carrying it beneath a helicopter. They are frequently used for the movement of vehicles, weapons, containers and food following earthquakes, tsunamis and hurricanes/typhoons. The highly skilled method requires specialist training in the use of the equipment such as strops/pendants, slings and cargo nets.


- / Optimised helicopter cargo ops
- / Increased speed and efficiency of cargo ops/reduces costs
- / Increased safety – no need to land and less danger to crews
- / Loads that are too big/bulky to transport inside helicopter
- / Training essential for safety and efficiency
- / 8' strops to 200' strops (Long Lines) depending on environment/Operational requirement


→ HELI-BASKET® MULTI-PERSON HELICOPTER RESCUE

The Heli-Basket® is a Multi-Person Helicopter Rescue device that enhances the capability of any rescue mission, rescuing up to 15 persons per single rescue cycle (HB2000) or 6 persons (HB1000).

- / Unique – no known competitor/alternative product
- / Designed for use with whole rescue demographic:
 - Injured / Frail / Children / Elderly
- / Where landing a helicopter is impossible or too dangerous
- / Transfer casualties or rescuees to nearest point of relative safety
- / Where winch based single or double lift for multi persons is too slow
- / Can be optimised for cargo in and rescue out (disaster relief) operations:
 - High Rise Building Rescue / Maritime Rescue & Evacuation
 - Natural Disaster Relief / Bush, Forest, Prairie Fire Fighting
 - Military & Security Operations

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→ INSERTION, EXTRACTION & VEHICLE INTERDICITON

INSERTION

Helicopter Insertion & Extraction is a (predominantly) military technique for delivering troops into locations rapidly and safely where a helicopter cannot land, or it's considered unsafe or undesirable for it to do so.

/ Special Forces or Specialist Personnel Operations include:

Rooftops / Roadside / Jungle Clearings
Mountainous terrain / Maritime Structures
Medical teams Disaster Relief teams / Fire fighters

/ Helicopter Abseiling

Heli Abseiling insertions allow the helicopter to dispatch troops from a high altitude of 200' or more as troops are harnessed to the rope via rigging that will prevent them from falling. Higher hover heights decreases the risk to the helicopter as it's less likely that they will hit ground obstacles or come into contact with the enemy.

/ Helicopter Fast Roping

Fast Roping is a method used to rapidly deploy lightly equipped troops into confined areas where a helicopter can not land. The rope is suspended from the hovering aircraft and the fast roper wears special gloves, allowing them to slide down the rope under control from heights of up to 90ft.

EXTRACTION

Neither Abseiling nor Fast Roping facilitates extracting troops if the helicopter is unable to land. During an extraction a SPIE rope (Special Patrol Insertion/Extraction System) is lowered into the pickup area from a hovering helicopter. Patrol personnel, each wearing a harness with an attached carabiner, hook up to a D-ring inserted in the SPIE rope.

/ Troop Extraction and Rescue Operations include:

Jungle / Maritime / Hot Contact Operations
Mountainous terrain / Stranded Fire fighters

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➔ INSERTION, EXTRACTION & VEHICLE INTERDICTION cont'nd...

PENDULUM HOOK – for both Insertion & Extraction

Neither insertion or extraction techniques allow troops to carry more than just the very basic equipment, which can limit the scope of operations being undertaken. The Pendulum Hook allows for troops and heavier equipment to be inserted or extracted together.

- / 10,000lbs WLL Remote Cargo Hook
- / Rapid 'hook on, hook off' capability
- / 10,000lb WLL Long Line Strop (rope) with D-Rings
- / Ideal for the Following Scenarios:

Special Forces Ops / Medical Personnel & Equipment Insertion
Firefighting Personnel & Equipment / Maritime Security Ops
Rapid Troop Extraction with Heavy Equipment

VEHICLE INTERDICTION

Vehicle Interdiction Operations intercept moving targets by helicopters carrying armed troops. Flight Crews require training in extreme low level flying techniques and rapid stops, and the assaulting troops need training in their helicopter safety awareness and how to rapidly disembark the aircraft on landing sites.

- / For fast moving, unpredictable scenarios
- / Ideal for Rapidly Changing, Unpredictable Scenarios, including:
Counter Terrorism / Counter Smuggling
Organised Crime / Drug Trafficking

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→ **INTRO TO EQUIPMENT**

In partnership with Helibasket LLC, IRG supplies market-leading multi-person helicopter rescue equipment. Our collaboration combines the expertise and innovative solutions of both companies, ensuring that rescue missions are conducted safely, efficiently, and effectively.

Key Features:

High Capacity / Superior Load Capacity / Stable and Safe Operations

- Helibasket® Multi Person Helicopter Rescue
- Electric Long Line Strops
- Tactical Remote Hook Systems
- Tactical Remote Pendulum



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The Heli-Basket® is a Multi-Person Helicopter Rescue device that enhances the capability of any rescue mission.

- / Maximises the numbers of rescues in a single mission whilst minimising recovery time during the life critical 'Golden Hour'.
- / The Heli-Basket® is not CG sensitive and maintains aerodynamic stability regardless of load placement, manoeuvre or air speed.
- / Test flown with symmetrical and asymmetrical loads at speeds up to 120kts without any adverse aerodynamic effects.
- / Available in various sizes for transporting up to 15 people.

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→ ELECTRIC LONG LINE STROPS

The long line is a heavy-duty rope made from high-strength, synthetic fibre with (or without) electrical conductors. It is used to carry the Heli-Basket® and any of our Remote Release Hooks.

- / The basic long line has a working load limit that is rated up to 30,000 lb with a minimum 6 X safety factor.
- / The stretch at failure is only 5%, making this a light-weight, high-strength, low-stretch cable.
- / The electric long line consists of our long line and an attached electric cable containing 3 (14 AWG) conductors.
- / The electric cable provides electric power to a remotely-controlled hook which can be attached to the lower end of the long line.




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→ TACTICAL REMOTE PENDULUM

Normal external load operations require that the ground crew connect the reach pendants or sling to the airframe cargo hook. The operations require precise hovering and alignment of the helicopter relative to the load. The Pendulum Hook system improves all aspects of the operation.

- / Ground crew remains clear of fuselage and landing gear.
- / Integrated Swivel.
- / No static discharge!
- / Minimal flight and ground crew training requirement.
- / Each Pendulum line incorporates 3 X 4500lb D-Rings imbedded into the lift line.

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→ TACTICAL REMOTE HOOK SYSTEMS

The Tactical Remote Hook System provides immediate access, point to point logistics, increased safety for ground crews, reduced hook up times and depending on line length, elimination of brown outs and white outs.

- / Used at the lower end of the Electric Long line, allowing the load to be 'hooked up' whilst the helicopter remains in a high hover, away from obstacles and danger.
- / The hand controller allows the crew member or winchman to release the load without releasing the Electric Long Line.
- / Multiple lift cycles.
- / Without the helicopter having to land, operational effectiveness and rescue efficiency are substantially improved.