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ISSUE 18

INTEGRA TAKES OFF IN AVIATION

UNDERGROUND CONTROL OF WELL ENDORSEMENT

MODULAR REACTORS: SMALL & LOW-CARBON



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ISSUE 18:
July 2026

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Welcome to the latest edition of Integrated. In this issue, we bring together a range of perspectives that reflect both the continued growth of Integra and the increasingly complex environments in which our clients operate.

We begin with an exciting development for Integra: the launch of our dedicated aviation loss adjusting capability in Latin America. This marks our first step into the aviation sector and builds naturally on our experience across energy, marine and construction. With another aviation hub already open in London and more planned, Integra's global capability is on the horizon. Also, on a personal note, Integra's diversification into aviation is especially meaningful as it represents a return to where my own career in insurance began.

Continuing the aviation theme, Integrated 18 includes an article exploring the insurance implications of aircraft fleets grounded over time. Also in this edition, we find a fascinating contribution from the team at DBI Consultants, who share their views on the evolution of project monitoring and explore how a more dynamic approach can enable better decision-making and stronger outcomes across complex construction and infrastructure projects.

We also take a closer look at the challenges surrounding underground control of well incidents – an area where technical judgement and careful interpretation are essential, particularly when the evidence is far from visible. In addition, we examine the importance of key and time-critical components in major projects, and how effective oversight during transit can help avoid costly delays.

We hope you find this edition insightful and reflective of the breadth and depth of expertise across Integra and our partners. Also, a big 'thank you' to all our expert contributors. As always, we remain committed to delivering clarity, technical excellence and trusted support in a risk environment of increasing complexity.

Best wishes,

Doug Horne, Global Head of Marketing and Communications

INTEGRA TAKES OFF IN AVIATION





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Integra's new Aviation Loss Adjusting capability is now live in Latin America. With further specialist hubs planned, and the team in London starting to arrive, we look forward to fulfilling our global aviation strategy.

January 2026 saw Integra enter the aviation sector with the launch of a dedicated aviation claims management, adjusting and surveying proposition in Latin America. Together with the recent opening of Integra's aviation hub in London, the move represents a significant strategic expansion and further diversifies our long-established claims expertise across multiple industry sectors.

This new capability in aviation loss adjusting builds on Integra's established reputation for handling complex losses across energy, marine, construction and infrastructure, and applies the same disciplined, engineering-led approach to airline, general aviation, rotor wing and aerospace risks. From high-value hull and engine losses to liability claims involving airports, MROs and ground handlers, Integra's latest proposition for the aviation sector is designed to support insurers, reinsurers, brokers and insureds operating across Latin America and internationally.

BUILDING AVIATION EXPERTISE IN MEXICO

Integra's new Latin America Aviation Team is based at our offices in Mexico City, and handles assignments across all Latin America. Initially the team comprises eight expert aviation adjusters who share over 100 years of experience in the aviation industry. Under the engineering-driven leadership of John Leonard (Regional Director Aviation) the team will focus on managing hull and liability losses.

THE INTEGRA LATIN AMERICA AVIATION TEAM



John Leonard
Regional Director Aviation

John started with Integra in January 2026 to head up our newly formed Latin America Aviation Team. His 35-year background in aviation started at British Airways where he worked for 13 years as a licensed airframe and powerplant engineer. He later obtained a commercial pilot's licence and has spent the last two decades in international loss adjusting, including 10 years working across Latin America. John's blend of engineering, operational and claims experience typifies Integra's new aviation offering: technically rigorous, commercially realistic and firmly grounded in the practicalities of how aircraft and aviation businesses operate.



Gerardo Martinez
Deputy Manager, Mexico

Gerado is a highly skilled aviation surveyor and adjuster who started his career as an aeronautical and flight safety engineer, where he brought strong analytical capability to technical investigations. Since then, he has spent over 20 years working for international loss adjusting firms in the region.



Alberto Castro
Aviation Adjuster

Alberto's wide-ranging background in aviation spans airport operations, flight and ground handling, aircraft maintenance and engine repairs. He held a senior position at Aeromexico prior to spending over seven years as an aviation adjuster.



Francisco Soto
Aviation Adjuster

Francisco moved into loss adjusting after more than a decade as an aeronautical engineer with Aeromexico. His experience includes heavy maintenance programmes and international aviation projects across the United States, Middle East, Central America and Mexico. He brings valuable insights into complex aviation repair and overhaul environments.



Valentina Giovini
Aviation Adjuster

Having spent over 13 years managing claims for London and Latin American insurers, Valentina's primary focus is aviation liability. She specialises in airport operator liability, ground handling, passenger and third-party claims and air cargo. Fluent in Italian, English and Spanish, Valentina is well qualified to manage losses across multiple jurisdictions.



Carlos Arenas
Aviation Adjuster

Carlos has worked in the aviation sector for more than 20 years. His specialism is general aviation and rotor-wing operations, including Unmanned Air Vehicles (UAVs).



Erick Silva
Aviation Surveyor

Erick is an aeronautical engineer with more than 15 years of industry experience, across both airline and MRO environments. He is fluent in Spanish and English with intermediate proficiency in French. His experience includes engine investigation and failure analysis, component overhaul programmes, and maintenance planning and technical operations management.



Ricardo Aranda
Aviation Liability Adjuster

Ricardo joined Integra in July following eight years in the Mexican insurance industry. A qualified lawyer with specialist diplomas in insurance, claims, civil liability and professional indemnity, he brings extensive expertise in complex liability matters and claims handling across the Latin American market.

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EXPANDING AVIATION CAPABILITY IN BRAZIL

As well as opening our hub for aviation loss adjusting in Mexico, we recently launched a new aviation operation in Brazil. Based in Sao Paulo, our Brazil Aviation Team is headed by Aviation Manager Marcelo Miranda and overseen by Regional Director, John Leonard.

THE INTEGRA BRAZIL AVIATION TEAM



Marcelo Miranda
Aviation Manager, Brazil

After more than two decades working in the aviation industry and several years as an aviation adjuster, Marcelo is perfectly qualified to lead our Brazil Aviation Team. His career started with a degree in aeronautical engineering, followed by postgraduate qualifications from Embry-Riddle Aeronautical University. He went on to hold managerial roles within LATAM Airlines and Rolls-Royce before becoming a loss adjuster. Marcelo is a fluent speaker in Portuguese, Spanish and English and well versed in both airline and manufacturing environments.



Eduardo Buitoni
Aviation Adjuster

Eduardo has spent over 15 years of his career handling commercial aircraft and general aviation claims. A qualified aeronautical engineer and private pilot, Eduardo combines technical analysis with operational awareness, both of which are especially valuable when assessing causation, repair methodology and downtime.

OUR LONG-TERM AVIATION STRATEGY

Integra's latest aviation proposition reflects a clear, long-term strategic intent to offer a technically credible, people-led alternative in a market where experience and engineering insight are both critically important. With our Latin America teams now fully operational, our focus is to extend our aviation network by opening more regional centres of excellence. With Integra's London aviation hub already open, we continue to explore suitable locations for further regional hubs, with the aim to build world-class aviation adjusting capability on a global scale.

OUR AIM IS TO BUILD WORLD-CLASS AVIATION ADJUSTING CAPABILITY ON A GLOBAL SCALE.

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UNDERGROUND CONTROL OF WELL ENDORSEMENT



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In Operators' Extra Expense (OEE) insurance, few areas require as much technical input from the loss adjuster as the underground control of well claims, often referred to as an underground crossflow. Typical policy wording may appear precise, in that it is intended to reimburse costs incurred to control an "unintended subsurface flow of oil, gas, water and/or other fluid from one subsurface zone to another subsurface zone via the borehole of the well". But, unlike surface control of well events where the evidence can usually be observed or recorded subsea (via ROV video / oil sheen or bubbling at surface), an underground control of well event demands further evaluation and interpretation of what is taking place beneath the surface.

TRIGGERS FOR OEE WORDING

Broadly speaking, the Operators' Extra Expense (OEE) wording can be activated in two ways:

1. When a well meets the definition of being 'out of control' under the main body of the policy wording, i.e. a surface flow.
2. When coverage is triggered under the underground control of well endorsement. There are other endorsements such as Making Wells Safe and Extended Redrilling and Restoration, but these are typically named perils rather than requiring a 'flow' trigger (and potentially the basis of a separate discussion article).

WELL CONTROL MEASURES

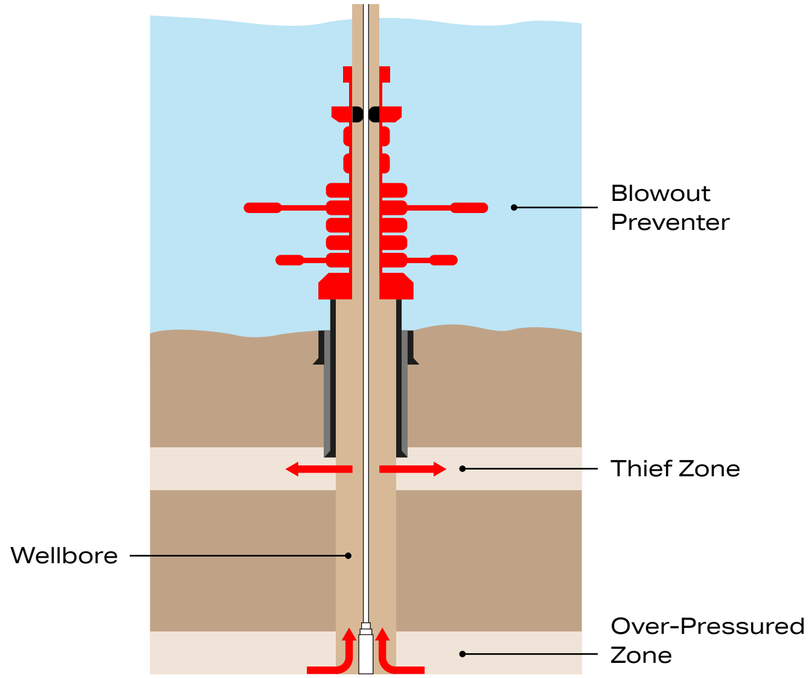
In challenging drilling environments, events such as mud losses, formation influxes or kicks are not uncommon. While such incidents may cause delays and increase operational costs, they are typically managed through conventional (primary[1] and secondary[2]) well control measures, and are generally considered part of drilling operations rather than satisfying the threshold for an insured control-of-well event (when operations typically resort to tertiary[3] control methods).

1 **Primary Well Control** is the process of maintaining control of the well through hydrostatic pressure in the wellbore, usually through drilling mud or other fluids and additives. This normally requires the hydrostatic pressure to be greater than the formation pressure, but less than the fracture pressure of the open hole.

2 **Secondary Well Control** is the process of maintaining control of the well through a blowout preventer or other surface equipment.

3 **Tertiary Well Control** is any further control of well efforts if the formation cannot be controlled by primary and/or secondary methods.

Fig 1: Underground Crossflow (Example).



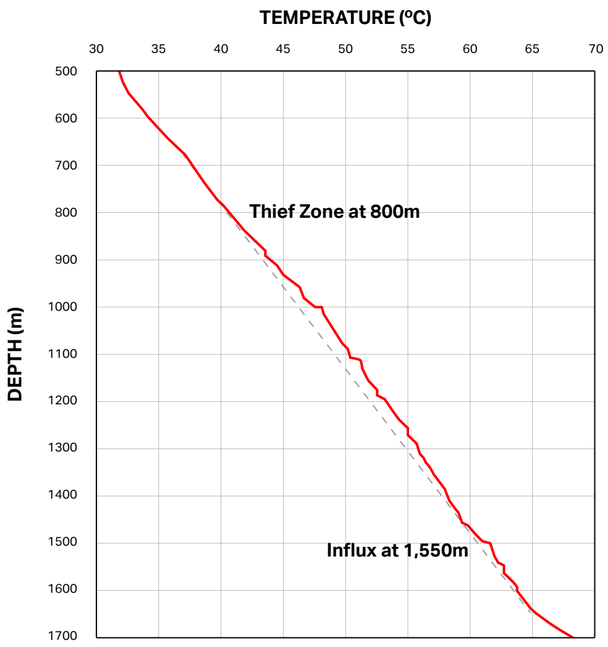
If we look at the wording more closely, it is intended to respond to the flow of any fluid which passes into the well from an over-pressurised zone and then, after passing via the wellbore, from the well into a thief zone as illustrated in Fig 1. (above). Unlike surface blowouts, where the evidence of the loss of control can usually be observed, a subsurface crossflow occurs at depth (in the 'hole') and cannot be directly observed. As a result, underground control of well claims are typically evaluated on the balance of probability, requiring careful technical analysis and professional judgement, rather than the trigger being immediately obvious to all parties.

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WIRELINE TOOLS

In theory, wireline tools such as temperature and noise logs provide strong confirmation of a subsurface crossflow. But, in practice (depending on geographical and physical location) these tools are not often deployed during an active control of well event, as usually the insured's immediate priority is to regain control of the well safely and efficiently rather than proving they have an insured claim. Typically, where such diagnostics are performed, they are used to inform operational decision-making such as where to place a plug in the well. However, when available, they can provide strong supporting evidence to assist in validating a claim. Fig 2. (below) is an example temperature log of an underground crossflow, with fluid entering the wellbore at around 1,550m and exiting the wellbore at approximately 800m. This clearly shows an increase in temperature against the expected geothermal gradient (i.e. increase in temperature with depth). Similarly, a noise log would pick up on activity downhole with elevated noise readings across the area of the crossflow and provide evidence of fluid entering and exiting the well.

Fig 2: Underground Crossflow Temperature Log (Example)





RELIANCE ON INDIRECT EVIDENCE

In the absence of wireline data, insurers must rely on indirect evidence derived from surface observations and well data. This includes analysis of wellbore configuration, casing design, mud weights, formation pressures and surface pressure behaviour. With this data, it is possible to model the most likely downhole scenarios and assess whether a subsurface crossflow is the most plausible explanation for the events observed. However, the effectiveness of this method requires a strong technical understanding of well engineering and well control operations.

SUMMARY

Given the inherent uncertainty of subsurface events, the appointed loss adjuster plays a pivotal role. Beyond technical competence, the adjuster must be able to identify key facts, ask the right questions and present a balanced and well-reasoned assessment to subscribing insurers. In a subscription market, the ability to lean on technical knowledge is essential and assists in keeping the market aligned. A measured and transparent approach helps ensure that valid claims are recognised, whilst interrogating all presented claims to the correct extent.

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PROJECT MONITORING:
TIME FOR A NEW APPROACH

DBI Consultants



DBI Consultants is a construction consulting firm providing independent analysis and strategic guidance on complex construction matters for the insurance and legal industries. In this article, members of DBI's leadership team examine how project monitoring must evolve to meet today's rising industry challenges. How can project monitoring evolve beyond static reporting and basic metrics to deliver real-time insights that drive timely decisions and materially influence project outcomes? Through the lens of complex reconstruction projects, this article examines how dynamic reporting is reshaping project monitoring to deliver the value needed in high-stakes, fast-paced environments.

MOST PROJECT MONITORING FAILS TO DELIVER VALUE

Project monitoring is intended to keep rebuilding moving while actively managing cost and progress, rather than pausing a project to fully define scope, pricing and contracts upfront as costs and business interruption continue to build. In practice, it often falls short, producing simple reports instead of meaningful insight and value.

On large, complex claims, the industry generates an abundance of data, headcounts, equipment logs and daily reports. But volume is not understanding. Information is fragmented, delayed, and disconnected from the decisions it is meant to inform. By the time it reaches stakeholders, the work has moved on, and both rebuild costs and business interruption exposure have already grown, often compounding daily.

A different approach is required, one that operates in real time, connects field activities directly to cost and schedule, and delivers information in a form that can be understood and acted on immediately. At DBI, this has meant rethinking project monitoring from the ground up, not as a reporting function, but as a continuous, real-time view into overall project performance.

INFORMATION LAG DRIVES COST, COMPLEXITY & CONFLICT

When information trails the work, issues grow, making resolution more reactive, complex and expensive. Delays in visibility allow misalignment to compound across labour, production and spend. By the time problems are formally identified, often after invoices or cost submissions, costs have accumulated, positions have hardened and conversations turn defensive.

This is the scenario we've seen consistently across large, high-stakes projects. Applying a real-time, connected project monitoring model has shifted the dynamic from reactive dispute resolution to earlier issue identification and faster resolution.



"Traditional monitoring models tend to default to confrontation because issues are identified too late. Real-time visibility changes that. When productivity, staffing and progress are visible as they evolve, discussions happen earlier, while adjustments are still possible and information is shared transparently across stakeholders."

Tomer Saar, Managing Partner, DBI Consultants

Transparency builds trust. Instead of pushing through cost and scope issues after they've already escalated, teams can work from the same information as conditions evolve. The result is a shift from reaction to coordination, and from friction to alignment.

COUNTING LABOUR & EQUIPMENT DOESN'T EXPLAIN THE WORK

Information should provide a clear, complete view of the work and allow stakeholders who are not on site to understand what is happening and where risk is emerging. On complex rebuilds, that visibility is critical. Owners, adjusters and insurers all need to understand how cost, progress and risk are evolving.

Traditional monitoring focuses on counting labour, equipment and hours. But counts do not indicate progress. A site can be fully staffed and still underperform. Costs can rise without corresponding movement in schedule.

Labour must be tied to contractors, activities and rates. Equipment must be linked to output. Everything must connect back to cost and schedule. Only then does the data begin to explain performance, not just presence.



"Effective monitoring requires understanding how the environment, the equipment, and the process come together."

Nicholas Costello, Partner, DBI Consultants

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This level of connected, contextual data is unusual in the industry. It reflects a more deliberate, value-focused approach that prioritises understanding over simple tracking.

DBI's approach structures data to dynamically reflect how the work is actually performed, connecting labour, materials and equipment directly to cost in real time while maintaining clear visibility into daily burn rates and whether the project is progressing as expected.

REPORTING THAT SURFACES WHAT MATTERS

Most reporting is built for completeness and tracking. Spreadsheets and dense logs require interpretation and time, pushing the burden onto clients and stakeholders. In fast-moving environments, this creates delay, misalignment and poor decision-making.

Effective, dynamic reporting makes the current state of the project immediately clear. Workforce levels, trends and gaps between planned and actual progress are immediately apparent, supported by clear visuals and structured summaries. The most critical information is easy to find, while detailed backup remains accessible when needed.

DBI's reporting is designed to highlight critical changes and emerging trends as they occur, rather than summarising after the fact. The result is information that can be understood quickly and acted on immediately.

For senior stakeholders, including adjusters and the insurers, this clarity changes how projects are managed. Instead of relying on frequent site visits to understand conditions, they can see the project as it evolves through reporting that is consistent, structured and immediately actionable, often with greater transparency and detail than a site visit would provide.



"When reporting is done well, the information is already clear and the need for explanation falls away. Conversations become shorter, more focused and more productive."

Christian Scherf, Senior Director, DBI Consultants

EARLY ACTION CHANGES THE OUTCOME

The most consequential decisions on a project are often made early, when visibility is lowest and its structure and direction are still evolving. In many assignments, meaningful information does not emerge until weeks into the repair. By then, labour has already scaled, production patterns are established and costs, as well as decisions, have already begun to compound.

Real-time reporting and insight compress that timeline and introduce a level of clarity and transparency that traditional approaches cannot provide. On one large power generation project, this new monitoring approach quickly identified a disconnect between field progress and the stated schedule.



"We showed what was being projected versus what we were actually observing in the field, and you could see the variance right away."

Bryan Heikkinen, Partner, DBI Consultants

The reporting made the gap visible months before it was formally acknowledged, allowing both the contractor and stakeholders to understand the likely delay and begin working toward resolution.

In high-stakes environments, that exposure can escalate rapidly, turning days into millions of dollars. Identifying these patterns early requires continuous analysis, not periodic review, and remains uncommon in most monitoring environments.

FROM CLERKING TO MEASURABLE VALUE

Project monitoring, or 'clerking', is typically viewed as a cost. Its value depends on what it produces. When insight is fragmented or arrives too late, monitoring becomes limited to documentation, reconciliation and dispute support. To create value, monitoring must deliver meaningful insight in real time and inform decisions: how resources are deployed, how scope is defined and how alignment is maintained.

The objective is to move monitoring beyond reporting so it can actively influence outcomes. Much of that value comes from preventing problems: resolving misalignment before it grows, clarifying scope before costs are incurred, and addressing issues before they become disputes.



"In our newer approach, the real savings come from everything you don't have to do on the back end."

Tomer Saar, Managing Partner, DBI Consultants

A DIFFERENT STANDARD

The industry has no shortage of data. What is often missing is timely, actionable information that connects field observations directly to construction progress and cost.

As projects grow more complex and financial stakes increase, the expectations of project monitoring must evolve beyond more reporting or more counts, toward better timing, clearer context and information that can be used as conditions change. This is a completely different model and reflects how projects actually move: conditions shift daily, trends must be identified early, and decisions depend on clear, forward-looking visibility. At DBI, this model is already in practice, built around real-time data, connected insight and reporting designed to drive action. In high-stakes environments, information only has value if it arrives in time to change the outcome.

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SMALL MODULAR REACTORS:

THE SMALL BUT PERFECTLY FORMED LOW CARBON SOLUTION?



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Today, nuclear power, and in particular Small Modular Reactors (SMRs), are high on the agenda in many countries due to a rising demand for power generation, the transition to low-carbon generation and, more recently, energy security. SMRs are an especially attractive option for low-carbon power generation as they promise shorter construction lead-times, reduced infrastructure requirements and (hopefully) cheaper economies of scale. This article looks at the current status of SMR implementation and the key insurance perspectives.

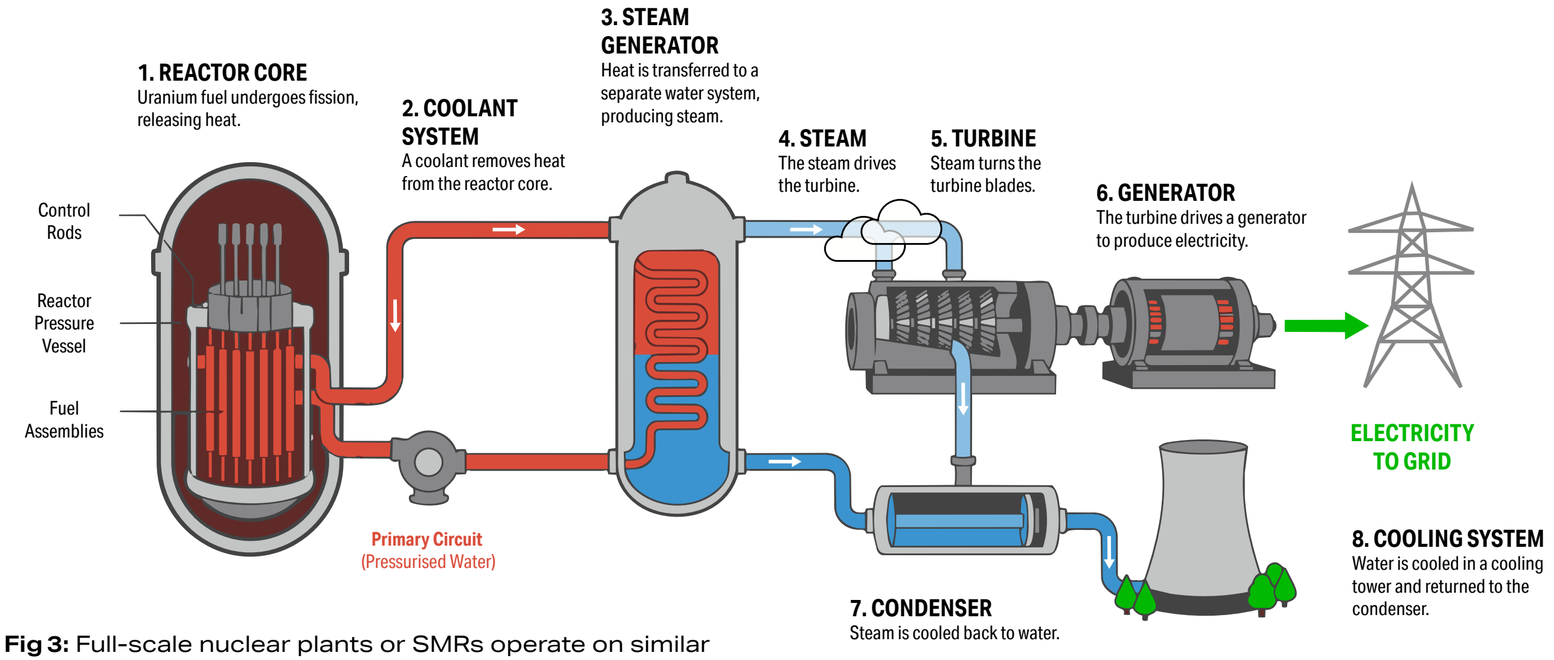


Fig 3: Full-scale nuclear plants or SMRs operate on similar principles (pressurised water reactor shown here)

WHAT ARE SMALL MODULAR REACTORS?

Nuclear power stations generate electricity by using a controlled nuclear fission reaction to produce heat, convert water into steam and drive steam turbine generators. SMRs operate on the same principle as full-scale nuclear plants, but are smaller (producing 300MW or less), built as factory-manufactured modules and assembled on site. In future, these serial manufacturing processes are expected to yield significant cost and quality efficiencies. However, commercial SMR manufacturing is at an early stage and the extent of these benefits is still unclear. This in turn creates commercial uncertainty for SMR developers, investors and insurers alike.

TECHNOLOGY LANDSCAPE

While full-scale nuclear power is dominated by pressurised water reactors (see Fig.3) with some advanced gas-cooled reactors and boiling water reactors, SMRs encompass a wide range of distinct technologies:

- **Light Water Reactors (LWRs)**, such as GE-Hitachi's BWRX-300 (boiling water), NuScale's US460 and Holtec's SMR-300, represent the most mature and lowest-risk approach because they rely on well-established reactor technology and operator experience.
- **High-Temperature Gas-Cooled Reactors (HTGRs)** use helium coolant and graphite moderation, operate at temperatures approaching 950°C and offer significant industrial heat applications.
- **Fast Neutron Reactors (FNRs)**, such as TerraPower's Natrium design, use sodium coolant and can utilise a wider range of nuclear fuels.
- **Molten Salt Reactors (MSRs)** dissolve fuel directly into the coolant, eliminating conventional fuel rods. MSRs offer attractive passive safety characteristics, but commercial deployment is still some way off.

TODAY, ONLY TWO SMR PLANTS ARE OPERATIONAL: RUSSIA'S FLOATING NUCLEAR PLANT AKADEMIK LOMONOSOV & CHINA'S HTR-PM AT SHIDAO BAY

DEPLOYMENT STATUS

Today, only two SMR plants are operational: Russia's floating nuclear plant, Akademik Lomonosov (comprising two KLT-40S reactors, ~70 MW combined) which has supplied power to the town of Pevek since 2020, and China's HTR-PM at Shidao Bay, which was first grid-connected in 2021. GE-Hitachi's BWRX-300 boiling water reactor is currently the most advanced western design, with construction underway at Ontario Power Generation's Darlington site in Canada and a target operational date of 2030.

NuScale has regulatory approval for its modular reactor design, while TerraPower's Natrium project is under construction in Wyoming. Other major participants include Holtec International, Rolls-Royce, EDF, Westinghouse, China National Nuclear Corporation and ROSATOM.

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HOW SMRs DIFFER FROM FULL SCALE NUCLEAR PLANTS

Typically, a full-scale nuclear plant generates between 1,000 and 1,600 MW, requires capital investments of US$8–15 bn and takes more than a decade to construct.

By contrast, SMRs come with capital costs of approximately US$1–3 bn and projected construction schedules of two to three years. Their relatively compact size allows for easier deployment on smaller electrical grids and enables a wider scope of applications such as hydrogen production, desalination or industrial process integration.

But safety is one of the strongest points of comparison. Whereas traditional full-scale plants operate active safety systems that require extensive auxiliary equipment and common site-based infrastructure, SMRs include advanced passive safety systems to remove heat and safely shut down the reactor without relying on any external power or operator intervention. These passive safety architectures could transform the risk landscape by minimising the core damage scenarios that have defined nuclear insurance exposures in the past.

Fig 4: Large-Scale vs SMR Comparison

Large-Scale Plant (>1,000+ MW)	Small Modular Reactor (<300 MW)
US$8–15bn capital cost per unit	US$1–3bn capital cost (projected)
10–20 year construction timeline	3–5 year construction target
Site-built, bespoke civil works	Factory-fabricated, site-assembled
Active safety systems required	Passive / walk-away safety designed in
Needs large grid interconnection	Suitable for smaller or islanded grids
Highly enriched uranium (≤5% U-235)	Many designs require HALEU (5–20% U-235)
Full on-site fuel management infrastructure	Some designs offer extended refuelling cycles
Single large output per unit	Scalable: multiple modules on one site

ADVANTAGES & CHALLENGES

SMRs offer several important advantages versus large-scale plants (see Fig 4.). Factory fabrication promises improved quality control, greater standardisation and potentially more predictable construction costs. Modular deployment also allows utilities to invest incrementally rather than commit to a single multi-billion-dollar project.

However, significant challenges remain. Many advanced designs require High-Assay Low-Enriched Uranium (HALEU), a fuel currently produced at commercial scale primarily in Russia and China, creating strategic supply-chain concerns. Novel reactor technologies may also introduce new waste management and regulatory challenges.

THE INSURANCE PERSPECTIVE

For insurers, SMRs present a distinctly mixed risk profile. On the one hand, passive safety systems, reduced radioactive inventories and smaller emergency planning zones all represent positive developments. The probability and potential severity of major nuclear accidents may be materially lower than those associated with full-scale legacy designs.

But on the other hand, commercial operating experience remains limited. In several cases, insurers are evaluating technologies with little or no long-term operational history.

Property damage and business interruption exposures for an individual 300 MW reactor are significantly smaller than for a conventional gigawatt-scale plant. However, if a site contains multiple SMR units, individual modules would no longer be treated as independent risks and the combined value and risk could come close to the exposure profile of a large nuclear station.

The types of losses likely to be experienced at an SMR facility are largely similar to those to be expected at a large full-scale facility. These could include construction defects and delays, electrical failures, and turbine losses and fires, as well as flooding and natural catastrophes, cyber incidents and nuclear contamination events.

However, multi-module SMR sites may also be subject to particular losses such as potential common-cause series losses and shared infrastructure losses, as well as site flooding and fire events that impact multiple units. All these could present significant risks that require specific underwriting attention.



PARIS CONVENTION MODIFICATION REQUIRED

The integration of SMR plants into the Paris Convention on Third Party Liability in the Field of Nuclear Energy would raise complex legal and practical questions to address such as the necessity of having EUR 700m financial security on smaller stations. Also, the channeling of strict liability to the operator may require some modification with the potential for series manufacturing defects. The location of floating power barges in international waters could also prompt complex questions concerning legal liability.

CONCLUSION

SMRs present a real opportunity to broaden the power generation mix and provide low-carbon generation capacity in key local areas at reduced cost with enhanced passive safety features. However, multi-module installations and the diversity of associated technologies currently in development require bespoke underwriting approaches. It is likely that light-water reactors will come into large-scale operation first due to existing reactor technology experience. Today, the insurance industry has a limited window of opportunity to develop adequate insurance frameworks for these latest types of power installations. These initiatives must be undertaken at the earliest and before any significant insurance loss events occur.

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STATIC AIRCRAFT & DYNAMIC EXPOSURE:

THE INSURANCE IMPLICATIONS OF GROUNDED FLEET CONCENTRATION



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Aircraft on the ground are often perceived as representing reduced risk, with flight-related operational exposures removed as aircraft transition into a more controlled (less dynamic) environment. However, where significant numbers of aircraft within an operator's fleet become grounded simultaneously and concentrated at a single location, the nature of the risk can change materially.

AIRLINE INSOLVENCY, REGULATORY GROUNDING, SUPPLY CHAIN DISRUPTION, GEOPOLITICAL RESTRICTIONS OR OPERATIONAL RESTRUCTURING CAN RESULT IN LARGE NUMBERS OF AIRCRAFT BEING PARKED FOR EXTENDED PERIODS.

EXTENDED FLEET GROUNDING

Events such as airline insolvency, regulatory grounding, supply chain disruption, geopolitical restrictions or operational restructuring can result in large numbers of aircraft being parked for extended periods. Fleets that would ordinarily operate across wide geographic regions can quickly become concentrated static exposures, fundamentally altering the associated insurance risk profile.

The large-scale fleet groundings seen during the COVID-19 pandemic (and more recently due to the ongoing Pratt and Whitney GTF issues) provide a practical illustration of how quickly aviation exposure profiles can change once operational dispersion is lost. Aircraft that would ordinarily have operated across multiple jurisdictions became concentrated within a relatively limited number of storage locations, in some cases for prolonged periods. The pandemic also demonstrated how airports and storage facilities can quickly evolve into high-value accumulation environments when significant numbers of aircraft remain parked for extended durations.

HIGHER EXPOSURE FROM AGGREGATION

One of the more significant considerations arising from grounded fleet concentration is aggregation exposure. Severe weather impacting an airport or storage facility can damage multiple aircraft within a single occurrence, particularly where parking density is high and long-term storage infrastructure is limited (i.e. parking outside in the elements, as opposed to hangered parking).

In one notably severe hail event affecting parked aircraft during the pandemic grounding period, multiple aircraft sustained similar upper surface damage, including impacts to crown skins, empennage and nacelle structures, radomes and flying control surfaces. Whilst the individual damage patterns themselves were generally manageable from a technical perspective, the resulting implications proved considerably more challenging. Multiple aircraft required similar inspection and repair activity simultaneously, creating concentrated demand for engineering resource, non-destructive testing, OEM support, repair approvals and material supply.



The practical consequence was that relatively moderate physical damage across numerous aircraft developed into extended fleet disruption. Repair activity became sequential rather than concurrent due to engineering capacity limitations and competition for specialist labour, materials and repair facility availability (particularly post-COVID). Aircraft that would otherwise have returned to service relatively quickly on an isolated basis instead remained grounded for extended periods as fleet-wide repair programmes developed, placing increasing pressure on fleet availability and operational recovery planning.

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EXTENDED EXPOSURE FOR INSURERS

From an insurance perspective, the exposure extends well beyond the initial repair costs themselves. Extended grounding generates continuing parking, storage and preservation costs, alongside ongoing maintenance obligations necessary to maintain airworthiness and protect asset condition during inactivity, with no hard or accurate time frame for an end date. At the same time, insurers often experience an altered premium position as aircraft transition from active operational exposure into reduced utilisation or ground-risk-only arrangements during extended repair or storage periods. The result can therefore be a difficult combination of increasing claims expenditure alongside reduced premium income associated with the affected fleet.

▶ INSOLVENCY SCENARIOS

In insolvency-related scenarios further complexity arises as aircraft transition between operator and lessor control, potentially involving multiple stakeholders, evolving insurance arrangements and differing preservation responsibilities. As aircraft are repossessed, relocated or prepared for onward lease, logistical coordination and exposure management can become increasingly fragmented, particularly where large portions of a fleet remain concentrated at a limited number of locations.

▶ SPLIT RESPONSIBILITIES

Coordination challenges also arise where the responding insurance policy remains associated with the operator, whilst technical oversight, preservation activity or repair management increasingly transitions toward the asset owner or lessor. In prolonged grounding scenarios, differing stakeholder priorities can influence repair strategy, return-to-service sequencing and long-term asset management decisions.

▶ ACCUMULATING COMPLEXITY

The accumulation aspects of such events also create complexity in relation to occurrence treatment, deductible application and reserve development. Whilst policy structures naturally vary, concentrated fleet events can generate substantial multi-aircraft physical damage exposures arising from a single incident, with the claims environment continuing to evolve over an extended timeframe as repair sequencing, storage arrangements and operational recovery progress.



WHILST LARGE-SCALE GROUNDED FLEET CONCENTRATION EVENTS REMAIN RELATIVELY UNCOMMON, THEY ILLUSTRATE HOW RAPIDLY AVIATION EXPOSURES CAN EVOLVE ONCE OPERATIONAL DISPERSION IS LOST.

▶ OPERATIONAL & ENGINEERING FACTORS

Importantly, the exposure profile associated with grounded aircraft is not limited solely to physical damage events. Long-term storage itself introduces operational and engineering considerations requiring careful management. Reduced aircraft movement, constrained engineering oversight, environmental deterioration, wildlife ingress and preservation management, and even exposure to theft, all become increasingly relevant where fleets remain inactive for prolonged periods.

▶ CONSOLIDATED STORAGE STRATEGIES

In this context, aircraft storage strategy itself becomes an important exposure consideration. Consolidating aircraft at a single location may simplify engineering oversight, preservation activity and operational coordination. However, it also significantly increases aggregation exposure arising from weather events, flood, fire or other localised incidents. Conversely, distributing aircraft across multiple storage locations introduces additional logistical complexity and cost, but materially reduces the concentration of insured values exposed to a single occurrence.

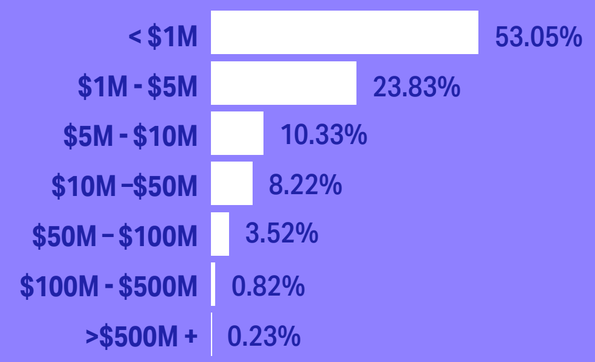
Whilst large-scale grounded fleet concentration events remain relatively uncommon, they illustrate how rapidly aviation exposures can evolve once operational dispersion is lost. What initially appears to be a relatively straightforward physical damage event can quickly develop into a broader operational, logistical and accumulation-driven claims challenge involving extended repair activity, complex coordination requirements and evolving exposure dynamics for operators, brokers and insurers alike.

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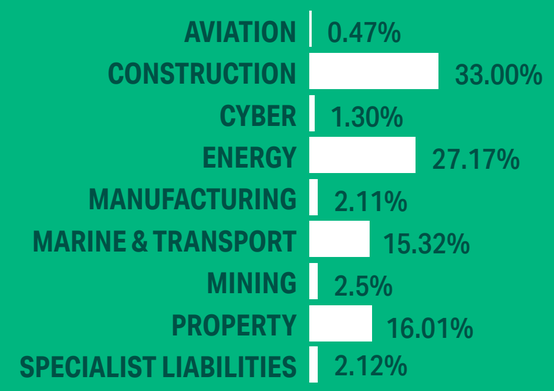
GROWTH FOR INTEGRA & ENGLE MARTIN

FY2026 has seen yet more growth for Integra and our partnership with Engle Martin. Take a look at our stats or visit integratechnical.com

VALUE OF CLAIMS (FULL YEAR 2025)



NEW CLAIMS BY SECTOR (FULL YEAR 2025)



2025 NEW STARTERS

MALCOLM CHAMBERS, LONDON
COLIN HARRISON, LONDON
PRASHANT KACHROO, LONDON
CHRIS TAYLOR, LONDON
JOHN HARRIS, ASIA PACIFIC
ANNE FORD, AUSTRALIA
MOHAMMAD MEHDAWI, DUBAI
GEORGE BEGLEY, SINGAPORE
RICARDO MEDONCA, USA
ROBERT PARKER, USA

2026 NEW STARTERS

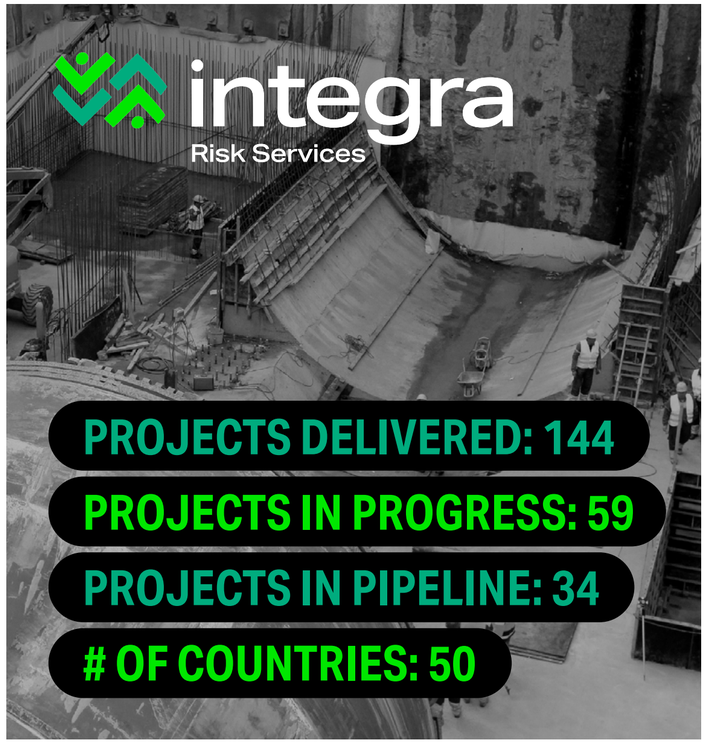
(UP TO END OF JULY 26)

NAVIN BAICHOO, LONDON
PAUL FREEMAN, LONDON
JOANNA HUNT, LONDON
NADEESHIKA JAYASINGHE, LONDON
KARA KILLINGTON-RATCLIFFE, LONDON
SEAN MOORE, LONDON
JORGE RUBIO, LONDON
HUW SELVEY, LONDON
CHRIS WHITTINGTON, LONDON
SOPHIE WILSON, LONDON
JARA JOUD, ABU DHABI
WILSON SALAS, AUSTRALIA
EDUARDO BUITONI, BRAZIL
MARCELO MIRANDA, BRAZIL
RICARDO ARANDA, MEXICO
CARLOS ARENAS, MEXICO
ALBERTO CASTRO, MEXICO
VALENTINA GIOVINI, MEXICO
JOHN LEONARD, MEXICO
GERARDO MARTINEZ, MEXICO
ERICK SILVA, MEXICO
MARIA SILVA, MEXICO
FRANCISCO SOTO, MEXICO
LILIANA VILLVICENCIO, MEXICO
DAVID MARITZ, NEW ZEALAND
JANENE PAKI, NEW ZEALAND
CHRIS STANDING, NEW ZEALAND

INSTRUCTIONS BY REGION (FULL YEAR 2025)

TOTAL: 852





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