POLICY WATCH

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A newsletter that highlights policies, plans, programs and progress in the global geospatial community.

In focus this month are: ▶

WGIC
World Geospatial Industry Council

Foreword

The March issue of the World Geospatial Industry Council (WGIC) *Policy Watch* could be renamed the WGIC *Strategy Watch*. Of all the activities highlighted herein, almost half of them are strategies, rather than policies and acts being developed for a wide range of topics. Included among these topics are two critical strategies for: Maritime 2050 (UK), and the National Remote Sensing Development Strategy 2030 (Vietnam). These strategies are based on specific sectors of the geospatial industry, spread across several decades, where resources have already been identified and allocated.

Another interesting aspect of this issue is that not all of these strategies, programs and plans are being developed at the national level. You will see that Victoria, Australia has issued a strategy for Digital Assets and a Digital Economy, and the State of Tamil Nadu, India has issued an Aerospace and Defence Policy targeting investments for a space corridor. This 'downscaling' of strategic planning, investment and collaboration from national to local scales will most certainly be good for the commercial sector. One can easily imagine that small and medium-sized enterprises (SMEs), including start-ups, as well as many others, will have easier access to these opportunities.

Lastly, there are also articles on important advances in: Autonomous Vehicle guidelines (USA); Cloud development (Saudi Arabia); Data Privacy (France and the UK); Drone requirements and regulations (Australia and USA); Open Data plans and legislation (EU and USA); and Space Program advancements and their funding (the European Union (EU) and the UK)– indeed, a comprehensive look at geospatial activities that span both numerous geographies and domains.

Please join me in reading the March issue of Policy Watch, and as always, feel free to provide any feedback so that we may better address your needs.

Barbara J. Ryan

Drones

USA - FAA Rolls Out Interim Final Rule for Visible License Plates on Drones

On 13th Feb 2019, the Federal Aviation Agency published the 'Interim Final Rule' under the title, 'External Marking Requirements for Small Unmanned Aircraft'. The rule requires all drones to display 'license plates' on the exterior of the aircraft, similar to those of on-road vehicles. The rule builds on the Mandatory Drone Registration Program for small drones that came into effect in 2015, wherein the legislation provides flexibility to the drone operators to store the unique identification number in a compartment in the drone, as long as it was made available upon request.

The new rule has been issued to address the recent concerns of law enforcement officials about the fear of explosives concealed in the drone compartments which a first responder might find when checking a compartment for the registration. The rule aims at enhancing safety and security and mitigating the risk associated with the first responders as the registration would be checked visually without the need to handle the drone directly.

The Interim Final Rule came into effect on the 25th February 2019 and is open for comment until March 15th, 2019. The final rule and any amendments will be determined after all comments are received.

What is the interim final rule?

The FAA issues interim final rules when delaying implementation of the rule would be impractical, unnecessary, or contrary to the public interest.

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Balancing commercial possibility of drones vis-à-vis safety and privacy

With remote identification of drones in place, the FAA in its regulatory framework on 14th January 2019 proposed a framework to allow drones over crowds and populated areas. The proposed regulations may soon mandate drones to begin broadcasting a radio beacon of owner and location. This inclusion in the policy is an advancement-of-note for it means the inclusion of technologies like GPS chips and trackers even in drones and model planes intended for recreational use and delivery purposes. Additionally, the FAA is also looking to add rules to ensure safe flying at night and safe overhead flying in its current regulatory framework. Comments for the same is in consideration until April 15th, 2019.

Drones

Australia - CASA Proposes Rules to Implement Mandatory Drone Registration

The Australian Civil Aviation Safety Authority (CASA) has proposed new rules for drone registration and the accreditation of drone operators. The proposed regulations does not go into effect immediately but emphasizes on gradual implementation. The initial registration requirements is expected to be implemented by 1st July 2019.

What does the rule mean for drone operators?

Commercial Operators:
All commercial drone owners/operators, are mandated to have their drones registered, irrespective of the size of the drone.

Recreational Operators:
All recreational users of drones are ordained to register their drones if it weighs for more than 250 gms (0.55 pounds)

What is the annual cost of drone registration?

Commercial Operators:
AUS$ 100-160
per drone,
for commercial use per annum
(US$71-114)

Recreational Operators:
AUS$ 20
for recreational use, per person, per annum
(US$ 14)

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1 July 2019-RPA operator certificate (ReOC) holders (registration only)

Excluded RPA operators (Sub 2k and flying over personally owned land) (accreditation & registration)

Recreational drone operators (accreditation & registration)

July 2019   **Sept' 2019**   **Nov' 2019**

Space

UK - UKSA Creates 'LaunchUK' and Announces Prospects Post-Brexit

In January 2019, with the confirmation of 'Brexit', the UK Space Agency (UKSA) realized the need to strengthen the local space industry to achieve its commercial launch ambitions. A crucial step taken in the direction is the launch of a new webpage, namely, LaunchUK on the official government website (gov.uk). The website will provide insights on critical space legislations of the UK such as the Outer Space Act of 1986 and the Space Industry Act 2018 along with the latest statistics on the space industry.

The official LaunchUK prospectus highlights the UK government's investment of £5 billion in civil space activity between 1995 and 2015. Presently; the UKSA aims to increase the share of the UK space industry in the global space economy from 6.5% to 10% by 2030. To further its vision, the UKSA has allocated £50 million (US $64.52 million) for a small-satellite launch program, and another £600,000 (US $774,180) to the LaunchUK program.

In addition, the UKSA aims to create an enabling environment for the local space industry by initiating discussions with the industry, academia and research institutions to develop a new legislation to establish a productive and competitive commercial launch and spaceflight market. To support the ambition, the UKSA is providing grants worth million pounds to industry, drawing international agreements, easing license procurement processes, and by building educational opportunities for the space sector.

The three-stage plan of action for the UKSA is as below:

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Stage 1	Market Capture (2019 to 2020)	Initiate commercial launch from a UK spaceport from 2020
Stage 2	Market Development (2020 to 2025)	Encourage investments in developing additional space ports and creating advantages of domestic access to space
Stage 3	Market Leadership (2025 onwards)	Adopt new technologies, new innovations by pursuing new opportunities in the global market for sustainable and resilitne growth of the UK commercial spaceflight market

Space

EU and ESA allocate additional €96 million for the Copernicus Program

At the 11th European Space Policy Conference, the third amendment of the EU-ESA Copernicus agreement was signed, resulting in an additional €96 million (US $108.45 million) for ESA's space component budget for Copernicus.

The additional budget builds upon the agreement signed between the EU and ESA on the 28th October 2014 when over €3 billion (US $ 3.39 billion) was allocated to manage and implement the Copernicus 'space component' between 2014-2021. Under the seven-year plan of the EU, known as the Multiannual Financial Framework (MFF), approx. €4.3 Billion (US$ 4.86 Billion) was allocated for the Copernicus program for the period 2014-2021. Out of this, approx. €3.15 billion (US $3.4 billion) is to be with ESA as coordinator and operator of the Sentinel satellites until mid-2021, expected to last until 2028–30.

The third amendment expands the budget for Copernicus to €3.24 billion (US $3.66 billion) until 2021. The additional budget is targeted to develop the Sentinel-6 mission of Copernicus and ensure easy access to reliable and timely data to Copernicus users. Further, the budget shall enable innovation by way of creating a healthier economy for commercial users of Copernicus data.

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Space

Vietnam – 'National Remote Sensing Development Strategy for 2030, Vision to 2040' Approved

To advance Vietnam's remote sensing capabilities, Prime Minister Nguyen Xuan Phuc approved the National Remote Sensing Development Strategy for 2030, vision to 2040 document on the 1st February 2019. The strategy falls under the umbrella of the Ministry of Natural Resources and Environment and came into effect on the signing date, i.e. 1st February 2019. The vision document aims to provide a ground for the government and the industry in Vietnam to co-develop the remote sensing sector.

The objectives defined under the strategy include:

1
Develop and complete institutional arrangements such as policies, standards, data access laws, capacity development for remote sensing

2
Manufacture remote sensing satellites (optical and radar) by way of increased investments, establishing remote sensing data collection stations, investments in hardware and software to commercialize and democratize remote sensing data for socio-economic development

3
Create a regularly updated national remote-sensing image database with high-resolution remote sensing image data which is updated every year; ultra-high resolution data is updated every 5 years.

4
Strengthening sharing of remote-sensing data among different government institutions, branches, organizations and individuals to enhance the use of remote sensing data.

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UK – Maritime 2050, Strategy Paper Published

To maintain its leadership position as a global maritime nation, the UK Hydrographic Office (UKHO) has adopted the 'Maritime 2050', Strategy Paper. The strategy was initially released in March 2018, with a call for evidence by the Ministry of Transport and after an almost year-long scrutiny, the strategy was officially launched on 24th January 2019, at the International Maritime Organization in London. In the strategy, the maritime sector includes shipping, ports, services, engineering and leisure marine industries.

The strategy is a set of tactical ambitions for the government, the industry, and the maritime sector to follow and imbibe in their maritime-related objectives.

The 'Geospatial' Scope:

- Communication and location are critical in the marine environment and, therefore, the strategy focuses on the accurate positioning (location) signals derived via satellites of GPS, Galileo and GLONASS for safer navigation.
- Use hydrographic and marine geospatial data to 'unlock maritime economic potential' and to enable mapping of the seabeds, which in future may lead to enhanced maritime navigation
- Increasing requirement of geospatial data (any format) as maritime vehicles become more connected.
- T-Trig scheme to support innovative solutions for collecting and using geospatial data to enhance maritime navigation
- Government to support and invest in industries that will develop standards, and technology for maritime mapping and developing secure communications technology for vessels
- The UK to establish a virtual Marine Geospatial Innovation Centre for industry, academia and government to collaborate and create new applications in the maritime sector.
- Drones and airborne sensors are to be used to enforce maritime (environmental) regulations.

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Open Data

USA – Launch of OPEN Government Data Act

To facilitate federal agencies of the USA to share their data in a machine-readable and an open data format on a common platform, the Open, Public, Electronic and Necessary Government Data Act was signed into a law as part of the Foundations for Evidence-Based Policymaking Act (Public Law 115-435).

The open data under the act is covered under two categories:

* Data under open licenses;
* Data under worldwide public domain.

Government agencies are mandated to share their data in a standardized and non-proprietary format, while simultaneously also excluding data that may breach privacy, security and confidentiality. The agencies are also required to designate a point-of-contact (Chief Data Officer) for public concerns and queries regarding open-data requirements. Any agency wishing to share and access data may also put their data in the worldwide public domain to create the potential for innovation and entrepreneurship in the economy.

The Act is also foreseen to have an additional impact on other sector-related policies such as the Geospatial Data Act and the National Defense Authorization Act, both of which require that data of organizations (Government and affiliated private and public agencies) to be available on an open platform for public use.

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Open Data

European Commission – Update on Public Sharing of Information and Data

In January 2019, The European Commission issued a new set of rules for Open Data and Public Sector Information. The newly agreed upon directive requires the identification of relevant data sets which have a high commercial potential and may lead to the creation of region-wide products and services, information-based projects, and the development of AI. It is important to note, the datasets mentioned in these rules are both- statistical and geospatial data.

The new rules also mandate reworking the exceptions that currently permit public bodies to overcharge for the dissemination and (re)use of data provided by them. Moreover, the directive's scope is to be expanded to data held by public undertakings; research data resulting from public funding; and increasing transparency between public and private sector organisations with agreements involving public sector information.

The next step forward is for the European Parliament and the Council of the EU to formally adopt the revised rule following which the Member States will begin to implement them within a two-year time frame. In this regard, the Commission will start working with the Member States on the identification of the high-value datasets which will be set out in an implementing act.

What does this mean for the Geospatial Industry?
- Easy access to public statistical and geospatial data
- Ease of use and reuse of spatial data
- More entrepreneurship and innovation opportunities in emerging technology fields; such as Artificial Intelligence, Machine Learning, Robotics and Automation.
- New applications, products and services for socio-economic-environmental development

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**Data
Privacy**

UK & France – The Struggle to Combine Data Privacy and Commercial Insight

The introduction of the General Data Protection Regulation (GDPR) and subsequently related policies across different economies has been the cause for massive struggle for commercial organisations utilizing data. Harder still is the lack of insight possible once this data has to be sacrificed under the veil of data protection.

The UK data-privacy and protection act, i.e. the Data Protection Act 2018, provides guidelines on how data collection and analysis can be achieved by using machine learning and predictive analysis models without breaching any ethical guidelines or laws. The guidelines bring forth three aspects of data collection and analysis: Data Review and Roadmap; Scope of Analysis; and Validation and Governance. The latter-most element of the framework is the most important as it introduces a unique perspective to include Data Protection Impact Assessments (DPIA's) that may help validate the use of personal data, for policy making, statistical application, and/or for any unidentified (yet) but specific new purpose.

The operational issues are supplemented with issues of trust. About 11% of the UK has voiced trust in the local government authority for managing any personal data, and 48% believe sharing of data will provide access to better services. Additionally, it is realized that there is a thin line between data protection and data sharing policies which need to be maintained to tap into the potential that may emerge with further growth in the Internet of Things (IoT) and Broadband sector.

The legal implication of GDPR highlights the need for policies to reflect the effort taken by the framework of the UK Data Protection Act, and an attempt to protect commercial organisations from committing such infractions, instead of merely requiring a costly certification process to prove the organization's alignment with the GDPR.

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Implications of GDPR: A case in point

France's authority on data collection, analysis and protection, the Commission Nationale de l'Informatique et des Libertés (CNIL) recently fined Google for 50 million (about US$56.8 million) under the GDPR. The amount may be small for a search giant like Google, however, any fine that may mirror the seriousness of this for a smaller organisation is likely to hurt the geospatial, location and IT economy.

Artificial Intelligence

USA – First Artificial Intelligence Strategy Released by Pentagon

In February 2019, the Department of Defense released a report outlining the need to incorporate Artificial Intelligence (AI) into its strategy. The Pentagon is working towards the use of AI throughout the military which is inclusive of all intelligence gathering operations to maintenance problems requiring prediction models. The AI strategy implementation, however, is intended to be heavily focussed on protecting tactical networks and preventing cyber attacks.

Further, the AI strategy, at present does not address the use of autonomous weapons for the USA considers the use of these technologies to be premature. An important and controversial project undertaken by the Department of Defense, is Project Maven, which uses aerial images from conflict zones for video-game based learning and training. Many spatial and non-spatial organisations are attempting to contribute to the project by way of data and technology. In this regard, the strategy is highly ethical and implementation while preparing for any conflict that may occur with other nations that are AI-ready. The American AI Initiative Executive Order calls for the Administration to "devote the full resources of the federal government" to help fuel AI innovation.

Nation-wide investments in machine learning are expected to be affected, as intelligent solutions and predictive analysis become critical for both - the public and private sectors.

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State-led initiatives

India – Tamil Nadu Aerospace & Defense Policy warrants large investment

The Aerospace and Defense Policy launched for the State of Tamil Nadu, India in February 2019, is an ambitious document. The policy eyes investments of US $15 billion across the next 15 years, in hopes of making the State the central hub for all aerospace-related activity in India.

In January, the Tamil Nadu Defense Industrial Corridor was inaugurated, with investments worth approximately Rs 3,038 (about US $428 million) was announced, with the majority of share coming from public sector undertakings. Additionally, the policy also brings forth the need to increase the number of jobs and thus the States contribution to the national domestic product, to create approximately 100,000 opportunities for employment across the next ten years.

The strategic and timely launch of the new policy and corridor, along with the promise for an increase in high skill employment will lead Tamil Nadu to attract higher investments over the next decade, validating the ambitious plan the State has for its aerospace and defense sector.

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State-led initiatives

Australia – Victorian Digital Asset Strategy Rolled Out

Rolled out in Victoria State, Australia, across government agencies with relevance to engineering and architecture in February 2019, the Victorian Digital Asset Strategy involves a framework on the growth and utilization of Digital Engineering (DE) and Building Information Modelling (BIM).

This strategy draws support from international and co-existing inter-jurisdictional precedence. Many countries in the EU, Singapore, New Zealand, and the USA have already adopted similar approaches and mechanisms to benefit from Digital Engineering. In Australia, New South Wales and Queensland have also taken initiatives and achieved substantial progress in this area. The strategy is a step forward for the Victorian State towards building an innovative asset and information management.

Further, the strategy aims to move towards the effective use of smart devices in a connected environment. Going forward, this requires investment and utilization of drones, autonomous vehicles, unified physical and virtual data, rapid feedback across design, construction and operations, remote monitoring, etc. With an invited state capital projects worth AUS $78.9 billion (US$ 56.51 billion) to be completed and delivered in the next year, the strategy provides a forward-looking outlook for decades to come.

Primary goals of the Asset Strategy:
- Improving public infrastructure assets;
- Improving public sector capability;
- Promoting innovation and digital efficiencies;
- Delivering effective and efficient public services; and
- Driving toward more sustainable

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Cloud

Saudi Arabia –
Cloud First Policy released

The Kingdom of Saudi Arabia, in February 2019, issued its Cloud First Policy for review and comments.

The Ministry of Communications and Information Technology (MCIT) has been aiming to form comprehensive legislation to help the rapid growth of the digital economy in the Kingdom, which will allow for greater IT spending and build the technological capacity that to attract foreign investments and develop best practices in the Industry.

The Cloud First Policy has three focus areas:

* Software as a Service (SaaS);
* Platform as a Service (PaaS); and
* Information as a Service(IaaS).

The strategy aims to follow a deployment model with three levels of cloud computing: Private Cloud, Government Cloud/ Community Cloud and Public Cloud.

The Public Cloud is meant to provide a platform to be used and managed by various entities, ranging from businesses to academic organisations, and can be a combination of any or all of these entities. Public Cloud is typically served by global players (e.g. AWS, Google Cloud, Microsoft Azure) as well as by local players (e.g. local telecom and ICT players). The model offers a plug-and-play model which will increase the speed of deployment of solutions.

The Cloud model correlates with any data protection policy as the Kingdom's Data Office is involved in classifying the uploaded data into three defined levels of privacy, in ensuring its protection. This classification is aimed to help entities understand the acceptable deployment models for the relevant data, to preserve national cybersecurity.

The policy also looks into the commercial aspect of cloud adoption to ensure that it yields a positive effect for businesses and the selected model of the Public or Hybrid Cloud Computing Model offers a cost-effective solution to any organisation.

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