Paper from EUGIN to EC on the ERNP

Background

A European Radionavigation Plan (ERNP) has long been on the European Commission's agenda as a legal instrument to define the pan-European radionavigation system mix as a coherent, trans-European Network (TEN). For example, the Council Decision from 25 February 1992 on "*Radionavigation Systems for Europe*" states that the Commission shall:

> *...pursue its work with a view to setting up a radionavigation plan which takes into account the development of satellite navigation systems, of existing terrestrial systems and of radionavigation plans of the Member States...*

Similar goals were also outlined in the proposal for a Decision of the European Parliament and the Council on Common Guidelines for the Installation of a Trans-European Transport Network[1]. Article 24 addresses the communication and navigation infrastructure for the complete network and specifically refers to new radionavigation systems, such as satellite navigation:

> *...For the safety of different transport modes, esp. the sea and air traffic, radionavigation systems have a central importance. Projects of common interest should therefore contribute to the improvement of today's systems by means of performance and safety. The final goal of the efforts should be a common system for Europe with satellite and terrestrial components....*

Satellite navigation – initially the global positioning system (GPS) and now Galileo – with trans-national and cross-sectoral application has been the main driver for the EC's interest. With the availability and widespread use of satellite navigation, the national approach to the governance and provision of navigation systems is no longer valid.

Previous Plans

The EC has embarked on two major projects to develop the ERNP. The first, undertaken in 1996, produced a major report, developed largely through an extensive consultation process with Member States, international organisations, sectoral stakeholders and industry.

This version of the plan was never politically popular or widely accepted and was not published. Its recommendations were overtaken by the Galileo Programme which started in earnest around 1997.

With the Galileo Programme underway, the EC revisited the ERNP in 2003/2004 when another major project was undertaken, similar to the first.

This second ERNP was also never published, however all of the work performed to date means that there is a good reference library as a starting point for any further work and many of the principal issues – such as vulnerability, liability and institutional frameworks – have been investigated if not solved.

The major difference between 2004 and 2012 is commoditisation of GNSS (e.g. through smart phones etc) and its widespread use enabling location based services etc. In itself, this is a huge market that needs to be considered/consulted.

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[1]   COM(94) 106 and: Council Doc. 7073/94.

Rationale for an ERNP

The ERNP is a critical policy instrument that will form the basis of the future European positioning, navigation and timing infrastructure. In this context it may be better to view ERNP as a European PNT (Positioning, Navigation & Timing) Plan.

The economic impact of PNT on transport to, from and within the EU is already huge and will become crucial as Intelligent Transportation Systems come into widespread use. ITS cannot function without reliable PNT and ITS is fundamental to EU plans across all sectors.

It is expected that implementation of a coordinated plan for PNT in Europe will enhance resilience, leading to (i) additional efficiencies across all sectors, (ii) enhanced effectiveness of PNT, and (iii) new opportunities for European industry.

With no plan in place the result will be a patchwork of barely compatible systems organised in a very uneconomic way, impeding the free flow of people and goods.

Thus an ERNP is needed urgently to ensure that Europe develops and operates a robust, resilient and economic PNT infrastructure to the benefit of the very wide range of industry sectors that routinely use PNT either commercially or to deliver socially important services. The ERNP will be a catalyst and framework for Member States to make informed decisions in areas where they have statutory or moral obligations and will facilitate decisions within industry concerning investment and innovation.

Overall approach

ERNP is essentially a political project and requires political drive and support from all directions. It must have EU wide participation and support if it is to succeed.

Galileo is obviously the core system within the ERNP, which should therefore be viewed as the framework for the provision of European, cross-sectoral resilient PNT in the most coherent and economic way.

The European Commission, as the executive of the European Union, is the natural organisation to drive the ERNP forward.

When developing the ERNP, it will be important not to pre-suppose any particular system solution: the solutions would come within the ERNP itself and to short-circuit the process by proposing solutions might undermine the overall approach. Thus the ERNP is a framework within which resilient, multi-sectoral PNT will be delivered without any pre-conceptions, at this stage, of what the answer(s) will be.

Key points

The key strategic points are:

- the ERNP must be system-neutral and not suppose any specific solution, but should be predicated on resilient European PNT for all

- the ERNP must be pan-European (coordinated and coherent) and multi-sectoral

- the ERNP will only progress with strong high-level political support. Given previous examples (e.g. Single European Sky), a High Level Group seems an efficient way of doing this but would need sponsorship at Commissioner level

- it should be made clear from the start that the plans of international bodies (in particular ICAO and IMO) will be fully taken into account

- without ERNP, European PNT will at worst not be resilient or at best be built as a patchwork of barely interoperating, diverse systems constructed and operated inefficiently.