

## France Example 2

ICAO	
Template for good practice examples of environmental assessment (Draft V1.0)	
<p><i>Note: The italicized text is for guidance only and merely indicates the kind of information that is likely to be of value for users of the ICAO assessment guidance. You do not need to cover all points if some are not applicable to your case study.</i></p>	
<p><b>Organisation/Company:</b> <i>(The name of the body that undertook or sponsored this assessment)</i>            Direction des Services de la Navigation Aérienne            (French Air Navigation Service Provider)</p>	
<p><b>Project Title:</b> <i>(The title of the project being assessed)</i>            New GNSS procedure QFU 30 at Nevers airport (France)</p>	<p><b>Date of Assessment:</b>            2012-09</p>
<p><b>ASBU Module Code(s)<sup>3</sup>:</b>            APTA – Airport Accessibility</p>	<p><b>State's Action Plan<sup>4</sup>:</b></p>
<p><b>Project Description:</b> <i>(Briefly describe the project or proposed operational change to be assessed for its environmental implications; Please when possible, use schematics for illustration.)</i></p> <p>DSNA wanted to implement a new procedure using RNAV GNSS criteria at Nevers airport on runway 30, replacing old conventional procedures. This new procedure was to be based on EGNOS signal.</p>	
<p><b>Reason for the environmental assessment:</b> <i>(Explain why the environmental assessment was undertaken and, if applicable, include any specific regulation, policy, or rule that requires the assessment to be undertaken)</i></p> <p>The French regulation asks the ANSP to undertake an environmental assessment prior to any AIS publication of a change to any ATC departure or arrival procedure (<i>Arrêté du 16 mars 2012 relatif à la conception et à l'établissement des procédures de vol aux instruments</i>).</p> <p>DSNA has defined an internal process in order to make such environmental assessments, from a single basic assessment to a complete study with different noise charts and analysis.</p> <p>The aim of the assessment is to give all the keys in order to decide to implement or not the expected new or modified procedure.</p>	

<sup>3</sup> **APTA**-Approach procedures including vertical guidance; **WAKE**-Wake vortex; **RSEQ**-AMAN / DMAN; **SURF**-A-SMGCS, ASDE-X; **ACDM**-Airport CDM; **FICE**-Increased efficiency through ground - ground integration; **DAIM**-Digital AIM; **AMET**-Meteorological information supporting enhanced operational efficiency; **FRTO**-En route Flexible Use of Airspace and Flexible routes; **NOPS**-Air Traffic Flow Management; **ASUR**-ADS-B satellite based and ground based surveillance; **ASEP**-Air Traffic Situational awareness; **OPFL**-In-Trail procedures (ADS-B); **ACAS**-ACAS improvements; **SNET**-Ground based safety nets; **CDO**-Continuous Descent Operations, PBN STARs; **TBO**-Data link en-route; **CCO**-Continuous Climb Operations

<sup>4</sup> <http://www.icao.int/environmental-protection/Pages/action-plan.aspx>

**Client or competent Authority:** *(Explain which body the assessment will be submitted to for their approval or decision making. Was the assessment internal or public? What audiences is it intended to inform?)*

DSNA produces the assessment which is presented to local communities and elected representatives prior to its finalisation.

The assessment is then proposed to the National Supervisory Authorities (DSAC) for approval.

**Assessment Approach:** *(This section asks for a brief description of your application of the ICAO guidance for each main assessment step. If a step was not undertaken, give a brief explanation of why the step was omitted or is not applicable to this assessment example. Please complete each section individually. In this box you can explain why the ICAO approach to assessment was chosen. If you did not apply the ICAO methodology, please explain how your methodology differed from the ICAO approach.)*

Considering the fact that the change is to be undertaken below 2000 meters and considering the low-level of traffic in this airport, it was decided, in accordance with the ANSP policy on environmental matters, to focus only on the effect on noise. The assessment didn't take into account the impact in terms of gaseous emissions.

Once the change had been defined (as explained in the "Project description" part of this form), the assessment was mainly focused on the following:

➤ **L<sub>Amax</sub> 65 dB:**

The aim of this indicator is to define the area where maximum noise level is above 65 dB.

The comparison is done between the number of inhabitants affected before the implementation of the change (based on real traffic) and after the implementation (based on noise simulations).

The noise simulations are obtained by considering the noisiest aircraft commonly met on this airport (CRJ 100 aircraft in this case).

**Preparatory Work:** *(Briefly explain the relevant background activities that have been undertaken to prepare for the assessment. This may include decisions or processes such as, deciding that an environmental assessment is required, identifying the assessment client, gathering base data, deciding on years to be assessed, deciding on assessment methods or standards to be applied. There is no need to cover all possible information, simply provide a sufficient explanation of the reasons why the assessment steps and approach were selected. How did you establish which rules, regulations, or standards applied to the assessment?)*

This new GNSS procedure was in line with the DSNA program on deployment of EGNOS procedures in France. The assessment was made in compliance with the applicable regulation, which requires an environmental assessment to be made by the ANSP prior to any change on arrival and/or departure air navigation procedures.

The DSNA procedure on environmental assessments explains the process to be followed for such assessment. For the change described in this form, it was considered as appropriate to only use the indicator previously described.

**Describe the proposed [operational] change, its purpose and alternatives:** *(Explain what will change as a result of the proposal to be assessed – this may repeat the information in the earlier project description. Explain why this project is required and what purpose it serves, and what alternatives have been considered. Information on why these alternatives were rejected is useful but not essential)*

For some years, DSNA has been planning to implement EGNOS procedures on minor airports in France. This change was then decided with respect to this plan.

This GNSS RWY 30 is based on two RNAV points QG406 (new IAF) and QG408 (new FAF). Aircrafts coming from the South, the East and the North are all converging to these points before landing on runway 30.

Describe the scope and extent of the assessment: *(How was it decided that this assessment was needed – “screening”. Describe the impacts to be assessed, for example, aircraft noise, CO<sub>2</sub> or NO<sub>x</sub> emissions, climate impacts or air quality impacts. Explain the decision making process that determined this scope and the level of detail to be used in the assessment – “scoping”. Also describe any formal processes to consult upon or agree on the scope, for example, via a nominated competent authority if applicable. Explain, for example, if the scope was set using expert judgement or a pre-assessment checks or information gathering. Also describe how the decision to undertake a more detailed assessment, or not, was taken. How were the base-case and proposed case(s) determined, why were particular years chosen?)*

The change was planned on approaching procedures under 2000 meters: In conformity with the ANSP environmental policy, only aircraft noise was considered in the environmental assessment.

Describe the assessment itself: *(Describe any standards or mandatory requirements for the assessment to be undertaken together with the methodology, monitoring or model used to determine the extent of the environmental impacts for the proposal. Give an indication of the extent or time-horizons that were chosen (if not already described earlier). Was quality management applied? For example, was there a process to ensure that the input data for the environmental assessment was consistent with other parallel assessments? Were interdependencies encountered and how did you address any trade-off issues? Was the expertise for this assessment available from internal resources or procured externally?)*

This change was not decided for environmental reasons but in conformity with the ANSP plan to implement GNSS in order to improve safety. Nevertheless, an environmental assessment has been undertaken and conclusions of this assessment were to be presented to the local stakeholders.

Describe the results and how they were communicated: *(Explain in general terms what the results of the assessment were, how this was used, for example to what extent it informed decision making or approval for the project. Was it produced as a draft for consultation or simply as a final report? Were the results validated or verified in any way – for example were the assessment processes or quality management processes independently audited? Did the results feed into a wider process, for example, a business case assessment?)*

The results are described in annexes to this form:

- Annex 1 – Comparison on LA<sub>max</sub> 65 dB from aircraft coming from the South
- Annex 2 – Comparison on LA<sub>max</sub> 65 dB from aircraft coming from the East
- Annex 3 – Comparison on LA<sub>max</sub> 65 dB from aircraft coming from the North
- Annex 4 – Population affected by LA<sub>max</sub> 65 dB

In each map, the observed pre-implementation situation is represented in **blue** and the planned post-implementation situation is represented in **green**.

By using the new EGNOS procedure, all aircraft landing to runway 30 of Nevers airport follow the same track. In the previous situation, aircraft used different tracks, depending on their arriving.

The environmental assessment showed that more population would be affected by noise above 65dB after the implementation of the GNSS procedure (10.708 inhabitants in comparison with 4.829 to 4.933 inhabitants). Yet, the study showed that, on average, only one aircraft per day would use this procedure and make as much noise as the aircraft used for this study (CRJ 100).

These results have been presented to the local stakeholders and the GNSS procedure has been implemented mainly for safety reasons, despite a slight increase of the environmental impact.

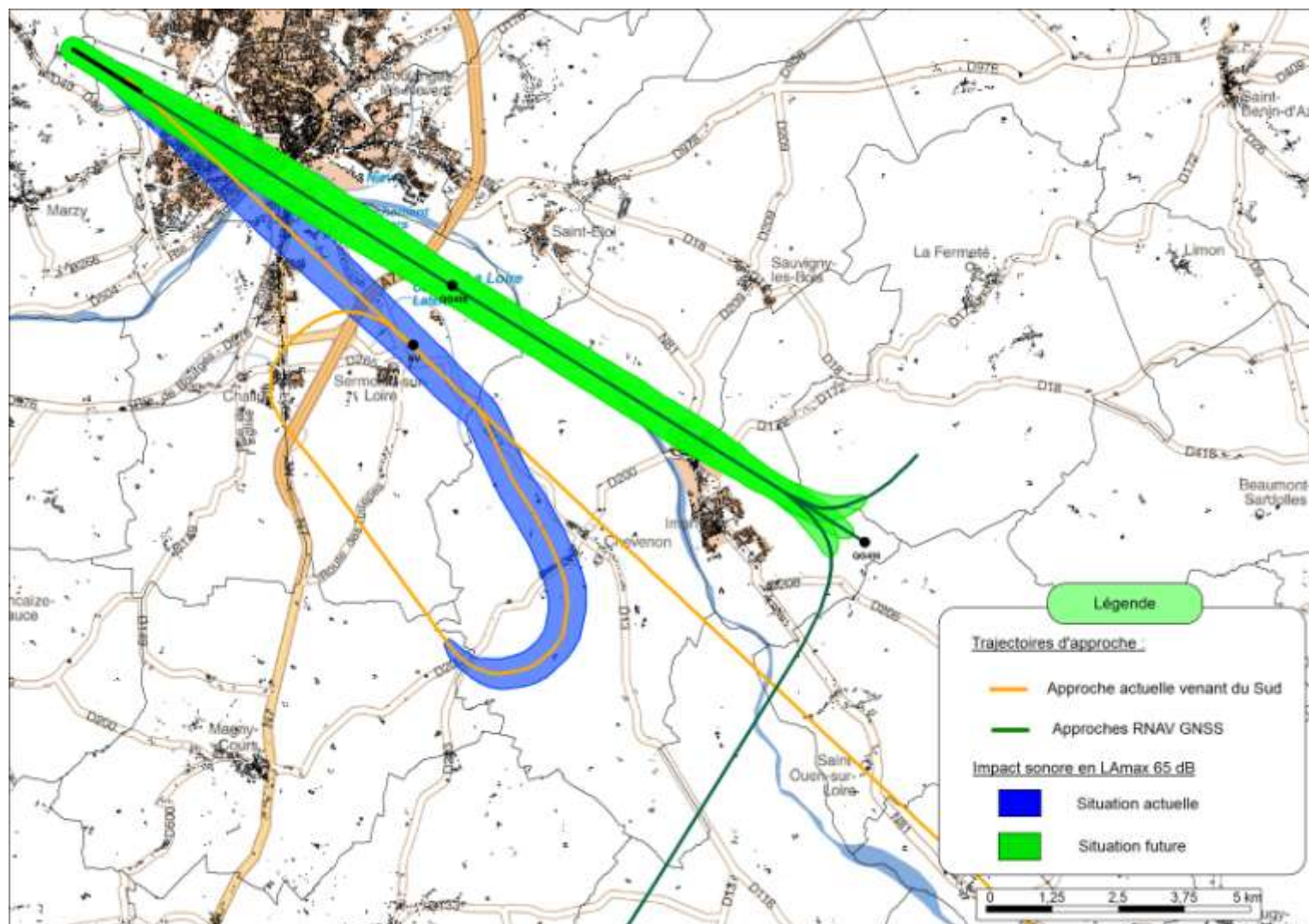
**Lessons learned:** *(Explain here what worked well, what could be improved, what you would do differently next time –If applicable please explain if you think the ICAO assessment guidance could be improved and in what way. If you did not use the ICAO methodology can you identify aspects of your methodology that could provide benefits to future iterations of the ICAO guidance? What aspects of the ICAO guidance would you apply to your own methodology for future assessments?)*

It was considered as successful to use only one indicator for this simple study.

The local stakeholders appreciated the fact that the environmental assessment had been seriously conducted, even if the results were not as good as they could have wished.

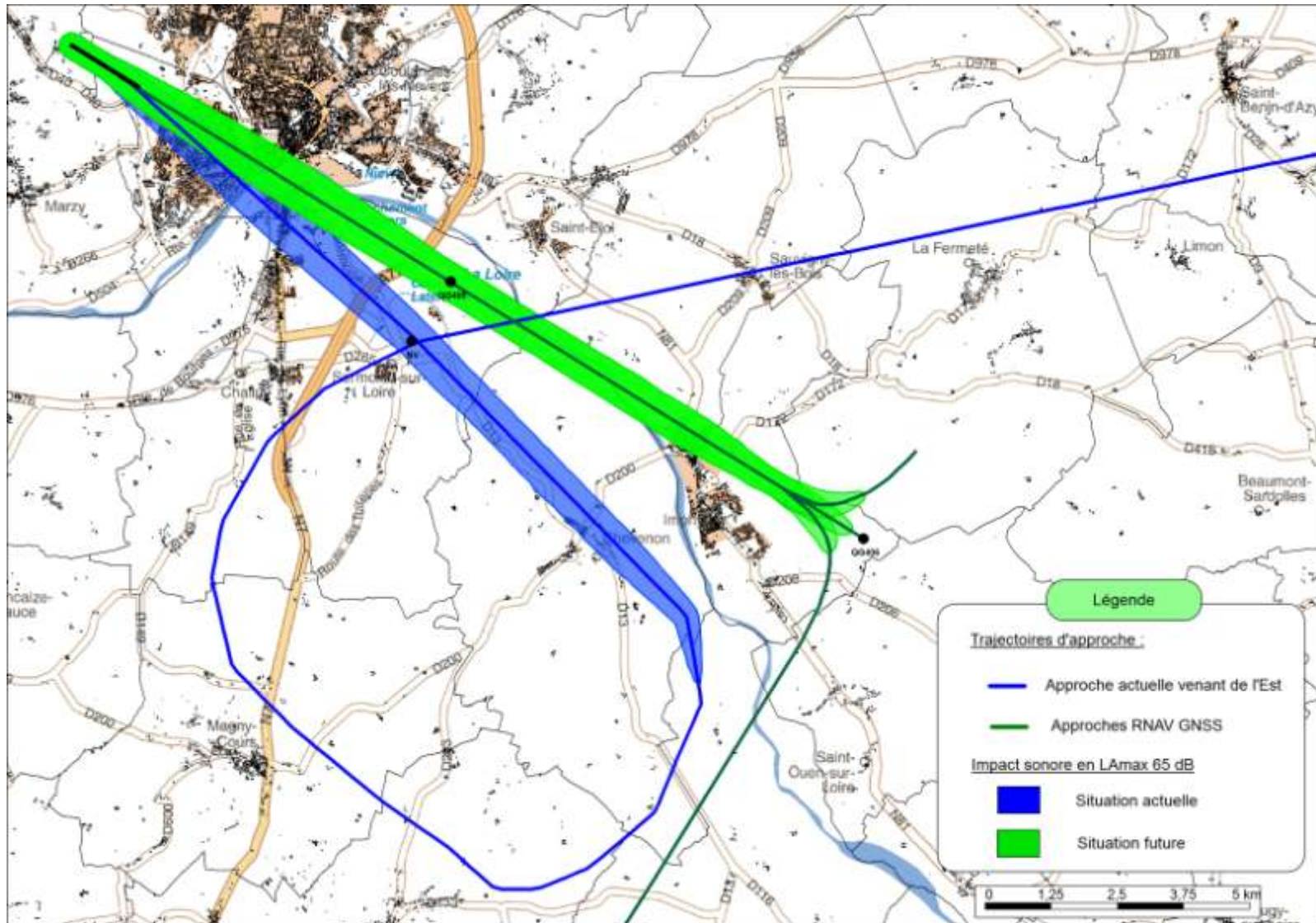
**Comments:** *(Optional - Offer here any other advice or hints that may be of value to others using ICAO environmental assessment guidance.)*

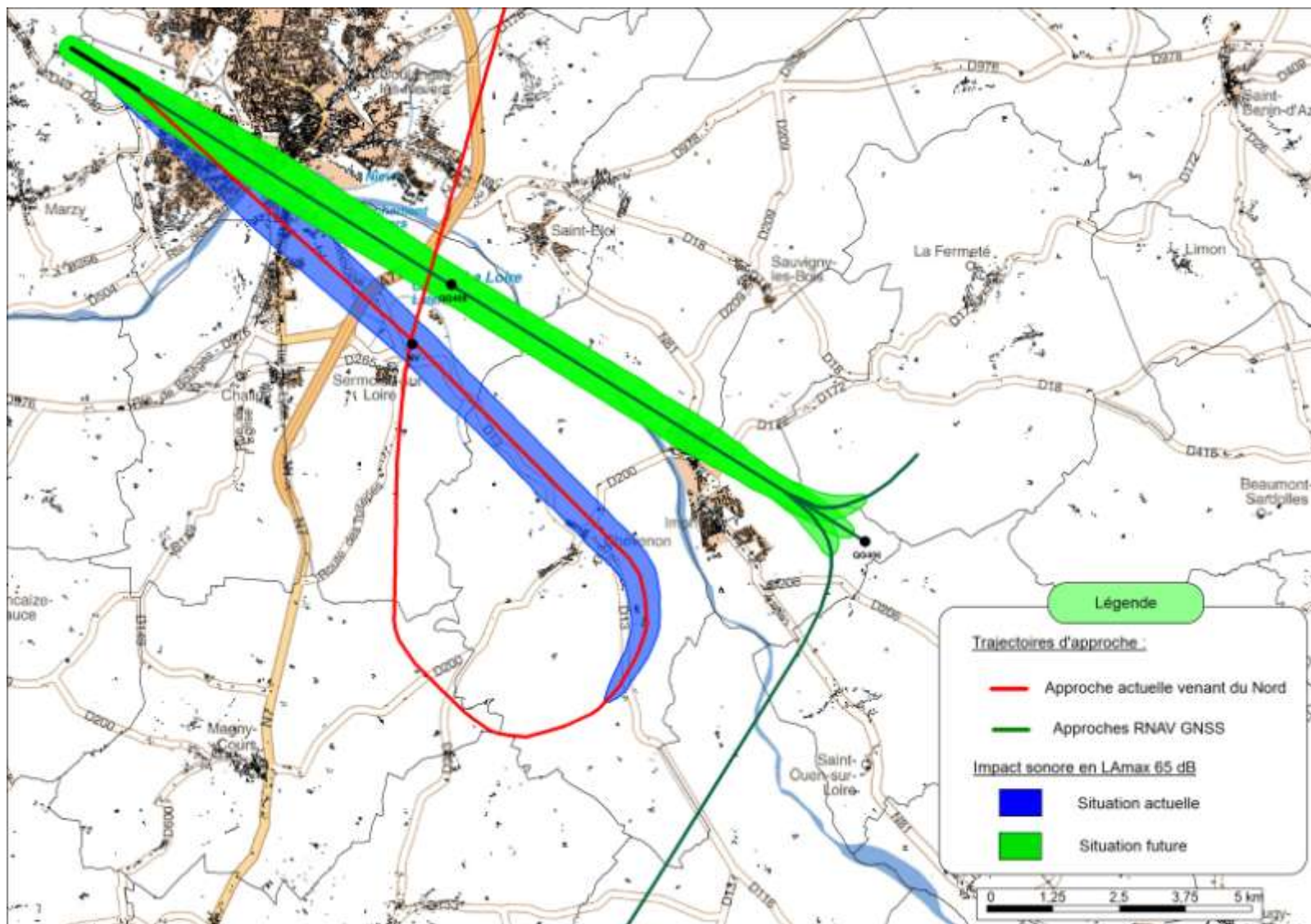
This example shows that an environmental assessment has always to be undertaken, even if it is not the only criteria to take into account for the final decision to implement or not the new procedure. In this case, the GNSS procedure has been implemented for safety reasons, despite a slight increase of the environmental impact, this impact remaining acceptable.

**France Example 2: Annex 1 – Comparison on L<sub>max</sub> 65 dB from aircraft coming from the South**



**France Example 2: Annex 2 – Comparison on L<sub>Amax</sub> 65 dB from aircraft coming from the East**



**France Example 2: Annex 3 – Comparison on L<sub>max</sub> 65 dB from aircraft coming from the North**

**France Example 2: Annex 4 – Population affected by LA<sub>max</sub> 65 dB**

*Impact sonore en LA<sub>max</sub> 65 dB pour les approches piste 30 :*

Impact sonore en LA <sub>max</sub> 65 dB pour un CRJ en approche	Situation actuelle			Situation future
	Approche venant du Nord	Approche venant de l'Est	Approche venant du Sud	Approche GNSS
Nombre d'habitants impactés	4 933	4 829	4 896	10 708