

Recognised Environmental Picture (REP) Video Script
(UNCLASSIFIED VERSION)

This script accompanies the Recognised Environmental Picture video that was shown by Ministry of Defence at the GI Panel meeting on 13 December 2005.

**“Know the terrain... Know the weather... Know the enemy...
and the victory will be complete”**

In the two and a half thousand years since Sun Tzu wrote these words, warfare has changed dramatically, and advances in technology have given today's armed forces unprecedented mobility, reach and fire power. Yet even today, the most well equipped defence forces remain subject to the constraints of hydrography and bathymetry, terrain, vegetation, climate and weather, and the atmosphere. This detailed information of the physical battlespace, needed to support operations in the digital era, has been termed the *Recognised Environmental Picture*, or **R.E.P.**

The need for the REP is paramount in today's complex and often dangerous world, providing commanders with sufficient environmental situational awareness to ensure successful prosecution of a campaign. This digital representation of the physical environment is a fundamental element of the J.O.P. and a key enabler for Network Enabled Capability or N.E.C.

The REP is in affect the geospatial and temporal glue for the JOP and will provide a common framework of consistent, coherent, accurate, and timely information from which to plan and execute operations.

The R.E.P. will be made up of information from a number of agencies, principally Defence Geographic Intelligence (DGIA), United Kingdom Hydrographic Office (UKHO), Number 1 Aeronautical Information Documents Unit (AIDU), and the Met Office.

These organisations will supply the static, encyclopaedic or foundation data, collectively called the Geospatial Foundation Information or G.F.I.

The second component of the R.E.P. is dynamic data, including local weather, imagery and other types of environmental information when the G.F.I. is of insufficient currency, coverage, resolution or accuracy to support a particular mission or task.

Historically, conflicting or unreliable information and a lack of environmental knowledge have led to military failure and unnecessary casualties. Weather played an important part in the D-Day Landings. Timing was critical as only a few days each month were suitable. It was important to land at dawn during a low tide so that beach obstacles would be visible. In addition clear skies, good visibility and a full moon was essential.

During Operation Tellic, HMS Roebuck carried out coastal survey of the sea bed. This updated information allowed the amphibious forces to get much closer to the landing area, thus cutting flying time and ensuring more helicopter trips and a faster deployment of forces.

Other recent operations have been hampered by a lack of coordination in handling Environmental Information; missile strikes planned with synchronised Battle Damage Assessment have failed to get that crucial post strike assessment due to different views of the forecast weather even within the same UK Joint Force.

Within the R.E.P., there will be some detailed "local" information which would be impractical to share in a timely manner with all R.E.P. users. This "Local R.E.P." will include environmental information, such as local forecasts, and providing detailed information on buildings, including house numbers and building use, when available.

So too is a detailed and accurate picture necessary for UK forces in responding to international disasters.

R.E.P. can also be applied to reveal the effects of operations on the environment, thereby safeguarding wildlife and their natural habitats.

In essence R.E.P. will mean all participants are using the same reliable information in any given operation, maximising resources and minimising the risk of collateral damage.

In summary, R.E.P. is essential in ensuring effective management of any given campaign by employing synchronised and accurate environmental information.