



**WHO International EMF Project**

**Report on EMF activities in Australia during 2013-2014**

**ARPANSA EMF Activities**

ELF magnetic fields from electrical power infrastructure and RF emissions from smart-meter technology remain the main focus of public concern as seen by ARPANSA. There is also concern regarding mobile telephony and particularly amongst those living near proposed mobile phone base stations as well as the roll-out of wireless computer networks in schools. ARPANSA provides a “talk to a scientist” service that deals with over a 1000 enquires a year.

**Public Information**

ARPANSA publishes on its web site monthly summaries (with select comments), on recent scientific papers dealing with EMF/EMR and health. The papers are selected on the basis of importance to the protection of health, on perceived likely interest to the wider public and where Australian research is reported. The summaries are available at

<http://www.arpansa.gov.au/RadiationProtection/EMR/literature/index.cfm>.

In order to better address some of the concerns on smart meters ARPANSA has revised its fact sheet on this topic. The revised fact sheet is available from

[http://www.arpansa.gov.au/RadiationProtection/Factsheets/is\\_smartmeters.cfm](http://www.arpansa.gov.au/RadiationProtection/Factsheets/is_smartmeters.cfm)

**Base Station Measurements**

To inform the public and to confirm the validity of the calculated predictions provided in the ARPANSA Environmental EME Report of exposure levels around mobile phone prepared by the industry, ARPANSA has continued its limited measurement programme on a sample of mobile phone base stations. Detailed results from a total of 28 base stations have been published on the ARPANSA web site. Results show that the calculated predictions used in the ARPANSA EME reports overestimate the measured maximum exposure by a small factor. They also show the wide variation that can be found even within one metre of a given location. The survey results are available at

<http://www.arpansa.gov.au/RadiationProtection/BaseStationSurvey/index.cfm>

**Preliminary smart meter measurements**

ARPANSA has published a technical report on some preliminary RF measurements of an installed mesh network smart meter. The measured exposures were well below the public exposure limits of the Standard. The technical report is available from

<http://www.arpansa.gov.au/pubs/technicalreports/tr163.pdf>.

**ARPANSA Guidelines for ELF and Static Electric and Magnetic Fields**

In 2011, the ARPANSA Radiation Health Committee made the decision to redraft the proposed “Standard for ELF and Static Electric and Magnetic Fields” as a Guideline. Significant work has been undertaken to harmonise the document with ICNIRP’s 2010 Guidelines and ensure the language is in a non-regulatory style. The Guidelines will include a recommendation to assess the potential for reducing exposure to magnetic fields where this can be done in a cost-effective way. Publication of the Guidelines is expected in 2014.

**EMR Health Complaints Register**

ARPANSA commenced Australia’s first centralised Electromagnetic Radiation (EMR) Health Complaints Register in 2003. The Register collects reports of health concerns related to possible EMR field exposures in the range of 0-300 GHz. Members of the public who believe they have suffered ill-effects as a result of exposure to EMR can lodge a written complaint to the Register. The analysis of

EMR Health Complaints Register Data for the period July 2012 - June 2013 is available at <http://www.arpana.gov.au/RadiationProtection/emr/index.cfm>.

## **Research – EMF and Health**

The significant fraction of Australian research into health effects of EMF/EMR/EME is funded through the National Health and Medical Research Council of Australia (NHMRC) from a levy on the telecommunications industry. In 2013 the NHMRC funded the Centre for Population Health Research on Electromagnetic Energy till 2017 to undertake a research in areas, consistent with the WHO Research Agenda. . More information on NHMRC funded research investigating the effects of EMF/EMR/EME and health is available from <http://www.nhmrc.gov.au/grants/outcomes-funding-rounds/nhmrc-funded-research-effects-electromagnetic-energy/nhmrc-grants-eme>

Ongoing research includes the Australian contributions to Mobi-Kids and INTEROCC, together with studies on the psychological outcomes of RF exposures, dosimetry studies and exposure assessments, thermal regulation, RF and EEG, in vitro studies examining interaction mechanisms and other investigations.

## **Policies, Legislation and Standards**

### **Review of scientific literature on health effects of RF EMR**

In March 2014 ARPANSA published the Report by the [\*ARPANSA Radiofrequency Expert Panel on Review of Radiofrequency Health Effects Research – Scientific Literature 2000–2012\*](#). On the basis of an examination of the scientific literature from January 2000 to August 2012, the Expert Panel concluded that the science behind the ARPANSA RF Exposure Standard ([Radiation Protection Series No 3, RPS 3](#)) remains sound and that the exposure limits in the Standard continue to provide a high degree of protection against the known health effects of RF electromagnetic fields. ARPANSA will review and update the Standard to take account of increased knowledge and to maintain alignment with the revised international guidance.

## **Conferences and Meetings**

The **Australian Centre for Electromagnetic Bioeffects Research** hosted the public symposium “Science & Wireless” at RMIT University in November 2013. The symposium provided an opportunity for scientists, regulators, industry specialists and members of the community to meet and exchange views on RF and health in a public forum. For more information see <http://rmit.net.au/browse;ID=oqqoku3iruy9z>

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