

The MUOS Ground Station in Niscemi: Legal Aspects and Environmental Sensitivities in US-Italian Relations

by Anna Magnasco



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E S S A Y P R I Z E

Starting from 1954 – when the still classified Bilateral Infrastructure Agreement (BIA) between Washington and Rome was signed – Italy has allowed the construction of various military bases on its territory serving US Armed Forces and North Atlantic Treaty Organization (NATO) operations. Given Sicily's strategic¹ position, several of them were built on the island: Comiso (no longer operational), Sigonella, Niscemi.² A few kilometres from

Niscemi, the Mobile User Objective System (MUOS) ground station has been built since 2011, a next-generation facility designed to “significantly boost communications capacity for the United States”³ transmitting data through an ultra-high frequency (UHF) satellite system worldwide. Connected to another three ground station facilities located around the world and four orbiting satellites,⁴ the Sicilian

¹ Arturo Di Bella, “The Sicilian MUOS Ground Station Conflict: On US Geopolitics in the Mediterranean and Geographies of Resistance”, in *Geopolitics*, Vol. 20, No. 2 (2015), p. 333-353, DOI: 10.1080/14650045.2015.1006361.

² Daniele Paragano, *Le basi militari degli Stati Uniti in Europa: posizionamento strategico,*

percorso localizzativo ed impatto territoriale, PhD thesis, University of Trieste, 2008, p. 111, <http://hdl.handle.net/10077/3056>.

³ Arturo di Bella, “The Sicilian MUOS Ground Station Conflict”, cit., p. 340.

⁴ Lockheed Martin website: *MUOS*, accessed 2 December 2022, <https://www.lockheedmartin.com/en-us/products/muos.html>.

Anna Magnasco is enrolled in a Master's degree in Cultural Anthropology and Ethnology at the University of Turin.

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MUOS is hosted in the “Sughereta”, a nature reserve since 1997.⁵ In the heart of the Sughereta, today, a large portion of forest land has been replaced with three large satellite antennas fully operational for use.

In the following, first, the most controversial legal aspects regarding the installation and presence of the MUOS in Niscemi will be analysed; and second, the socio-environmental problems emerging from its construction will be discussed. Both the legal and environmental dimensions highlight some critical issues in the relationship between Italy and the US.

Legislative opacity

The legal bases for the construction of the MUOS include the aforementioned BIA, reconfirmed by the 1995 so-called Shell Agreement⁶ and the subsequent 2006 Technical Agreement. The latter is specifically dedicated to the Sicilian bases of Sigonella and Niscemi, and grants some areas for the “exclusive use” of the US armed forces,⁷ although the agreement provides that such use

“does not limit in any way the exercise of Italian national sovereignty”.⁸ Throughout the process of construction of the MUOS, Italy was consulted from the beginning: authorisation from the Region of Sicily was indeed needed, as the MUOS facility was to be installed within the “Sughereta” nature reserve and had therefore to comply with environmental regulations.⁹

The assessment of the legal status of the MUOS is part of a debate that has been hardly explored in the legal field,¹⁰ as there is no clear established international norm regarding “foreign military presence on the territory of a state”.¹¹ Both the BIA and the 1995 Shell Agreement followed the so-called “simplified practice”, that is, they were signed by the government without the authorisation of the Italian Parliament.¹² This procedure, although very customary in the conclusion of international agreements, is not explicitly provided for by the Italian Constitution. More specifically, Article

⁵ Antonio Mazzeo, “Riserva naturale orientata Sughereta di Niscemi. La militarizzazione di un Sito di Interesse Comunitario (SIC)”, in *Italia Nostra, Paesaggi sensibili 2012: i Parchi*, Rome, 13 September 2012, <https://www.italianostra.org/?p=24614>.

⁶ *Memorandum of Understanding between the Ministry of Defense of the Republic of Italy and the Department of Defense of the United States of America Concerning Use of Installations/Infrastructure by U.S. Forces in Italy*, Rome, 2 February 1995, <https://it.usembassy.gov/wp-content/uploads/sites/67/2016/04/USSSO-shell.pdf>.

⁷ *Technical Arrangement between the United States of America and Italy*, 6 April 2006, Annex, p. 1, <https://www.state.gov/06-406>.

⁸ *Ibid.*, p. 6. See also Alfonso Desiderio, “Viaggio nelle basi Usa in Italia”, in *Limes*, No. 3/2007, p. 59-72, <http://limes.espresso.repubblica.it/wp-content/uploads/2008/06/059-072-lim-3-07-desiderio.pdf>.

⁹ Legambiente-Comitato Regionale Siciliano, *Osservazioni e proposte in merito alla vicenda MUOS all'interno della Riserva Naturale “Sughereta di Niscemi”. Valutazioni sulle illegittimità delle autorizzazioni*, Palermo, 22 January 2013, http://legambientesicilia.it/wp-content/uploads/Legambiente_MUOS_ARS.pdf.

¹⁰ Cfr. Sergio Marchisio, *Le basi militari nel diritto internazionale*, Milano, Giuffrè, 1984.

¹¹ *Ibid.*, p. 157.

¹² Natalino Ronzitti, “Le basi americane in Italia - problemi aperti”, in *Approfondimenti dell'Osservatorio di politica internazionale*, No. 70 (June 2007), p. 4-5, <https://www.iai.it/en/node/4780>.

80 of the Constitution mandates that “Parliament shall authorise by law the ratification of such international treaties as have a political nature, require arbitration or a legal settlement, entail change of borders, spending or new legislation”.¹³ In effect, what appears to justify the simplified procedure used for the BIA and the Shell Agreement is their ‘technical’ nature.¹⁴ However, one may well ask whether they can truly be considered as such, as their signing encompasses socio-environmental issues and significant effects on international politics.

Within this ambiguous legal framework, another issue concerns the very content of the treaties. As mentioned, the US is granted exclusive use of the involved areas in Sigonella and Niscemi. US commanders have “full military command over U.S. personnel, equipment and operations”, although it is their “duty [...] to respect the law of the receiving State” and they must notify in advance the Italian Commander of all their activities regarded as “significant”.¹⁵

Further ambiguity has characterised the process regarding the MUOS’s construction, marked by authorisation procedures whose transparency has been questioned¹⁶ – some of

them having been recently declared illegitimate by the regional administrative court (TAR)¹⁷ – and contradictory and wavering decisions by the Sicilian regional administration, fuelling further uncertainty around the MUOS.¹⁸ Finally, concerns have been raised by environmentalist movements about the related environmental and health risk assessments procedures.¹⁹

The socio-environmental impact

The MUOS ground station in Niscemi is located in a wooded area that hosts a rich and diverse ecosystem. Since the beginning, there have been concerns about the possible impact of the MUOS on the flora and fauna of the nature reserve as well as the people living in the nearby area. The Italian Health Ministry²⁰ and local administrations²¹ commissioned

¹³ Italian Senate, *Constitution of the Italian Republic*, https://www.senato.it/documenti/repository/istituzione/costituzione_inglese.pdf.

¹⁴ Daniele Paragano, *Le basi militari degli Stati Uniti in Europa*, cit., p. 126.

¹⁵ Technical Arrangement between the United States of America and Italy, cit., p. 18.

¹⁶ Legambiente-Comitato Regionale Siciliano, *Osservazioni e proposte in merito alla vicenda MUOS*, cit., p. 3-4.

¹⁷ Claudio Reale, “Il Tar di Palermo boccia il Muos: ‘Illegittimo il via libera al super-radar Usa’”, in *Repubblica Palermo*, 21 November 2022, https://palermo.repubblica.it/cronaca/2022/11/21/news/muos_niscemi_abusivo_tar_palermo-375451483.

¹⁸ Mario Fillioley, “E stuiativi u MUOS (il mio primo e ultimo post di servizio)”, in *I blog del Post*, 11 February 2013, <https://www.ilpost.it/?p=442181>.

¹⁹ Legambiente-Comitato Regionale Siciliano, *Osservazioni e proposte in merito alla vicenda MUOS*, cit., p. 5-6.

²⁰ Istituto Superiore di Sanità (ISS), *Valutazione previsionale dei livelli di esposizione ai campi elettromagnetici e dei conseguenti rischi per la salute umana connessi all’installazione del sistema MUOS*, Rome, 11 July 2013, https://www.iss.it/documents/20126/122555/Relazione_Finale_GdL_MUOS.pdf.

²¹ Massimo Zucchetti et al., *Rischi connessi alla realizzazione del MUOS (Mobile User Objective System) presso la base NRTF di Niscemi*, Hearing before the Italian Senate Health Committee, Rome, 24 March 2014, <http://www.senato.it/application/xmanager/projects/>

several studies over the years, whose results were contradictory and overall inconclusive. Environmental damage due to the massive construction work for the station was reported: namely, cementing activities, deforestation, drainage and land levelling that caused environmental alterations,²² endangering the ideal conditions for the survival of certain species.²³ As far as health risks for humans are concerned, in 2012, water contaminated with bromate was detected by the US Navy at Niscemi.²⁴ Today, the military base requires “extraordinary maintenance” to address the damage caused by “erosion”:²⁵ local environmental

activists argue that this may be due precisely to the improper works carried out for the construction of the MOUS station itself.

In addition to the damage caused by the construction works, some studies conducted before the station became operational claimed that electromagnetic emissions from the MOUS would lead to “probabl[y] exceeding” the limits set by Italian law.²⁶ A three-day test carried out in March 2016 recorded emission values within limits, although local movements questioned the reliability of the results.²⁷ Possible public health and environmental risks related to exposure to radiation from the MOUS are still debated, as the currently available evidence is inconclusive. Indeed, all studies agree on the need to continue to monitor emissions from the ground station.²⁸

Rather than on the accuracy of the data provided by the different parties, here we want to draw attention to the nature of the concerns raised: that is, what one may call “reasonable doubts”,²⁹ that

leg17/attachments/documento_evento_procedura_commissione/files/000/001/067/ZUCCHETTI1.pdf; Marcello D'Amore, *Relazione finale di verificaione*, 24 June 2013, <http://legambientesicilia.it/wp-content/uploads/DAMORE-RELAZIONE-FINALE-VERIFICAZIONE-MUOS-24.06.2013.pdf>.

²² Antonio Mazzeo, *Il MUOSro di Niscemi. Per le guerre globali del XXI secolo*, Firenze, Editpress, 2013.

²³ The oft-cited case is that of migratory birds disturbed by the construction work during their nesting period, as well as that of bees potentially disoriented by radioactive emissions. See, for example, LIPU Niscemi, “Foto-diario” di una passeggiata alla Sughereta: bellezze naturalistiche distrutte dal MUOS, 22 December 2012, <http://lipuniscemi.blogspot.com/2012/12/foto-diario-di-una-passeggiata-alla.html>; “Onde elettromagnetiche stazione MUOS di Niscemi”, in *Atlante italiano dei conflitti ambientali*, last updated 22 December 2017, <https://it.ejatlas.org/conflict/onde-elettromagnetiche-stazione-muos-di-niscemi>.

²⁴ Nancy Montgomery, “Navy: Contaminant Found in Drinking Water at Parts of Sigonella”, in *Stars and Stripes*, 29 May 2012, <https://www.stripes.com/branches/navy-contaminant-found-in-drinking-water-at-parts-of-sigonella-1.178910>.

²⁵ Simone Olivelli, “Muos, la Marina militare Usa propone nuovi interventi. Attivisti: ‘Manutenzione? Per riparare ai loro danni’”, in *MeridioNews*, 2 July 2022, <https://meridionews.it/?p=101118>.

²⁶ Massimo Zucchetti and Massimo Coraddu, *Mobile User Objective System (MUOS) presso il Naval Radio Transmitter Facility (NRTF) di Niscemi: Analisi dei rischi*, 4 November 2011, <https://staff.polito.it/massimo.zucchetti/RelazionRischiAssociatiRealizzazioneMUOS1.pdf>.

²⁷ Giorgio Ruta, “Muos, la perizia esclude i rischi per la salute”, in *Repubblica Palermo*, 25 March 2016, https://palermo.repubblica.it/cronaca/2016/03/25/news/muos_la_perizia_esclude_i_rischi_per_la_salute-136267387.

²⁸ ISS, *Valutazione previsionale dei livelli di esposizione ai campi elettromagnetici*, cit., p. 31.

²⁹ Naomi Oreskes and Erik M. Conway, *Merchants of Doubt: How a Handful of*

the scientific community must address and engage with. Indeed, it is precisely because of this uncertainty that, according to the experts commissioned by the local administrations challenging the MUOS installation, the "precautionary principle" should have been applied.³⁰ Principle 15 of the Rio Declaration mandates that "Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation".³¹

A clash of interests

US military bases on Italian territory may be described as "heterotopias":³² real but contradictory spaces where the meaning of things is blurred. Within the military area of Niscemi, one may argue that the meaning of environmental protection, public health, sovereignty and collective defence is uncertain: data is clouded and the law is opaque. The critical issues emerging from the MUOS case – "questionable" rights, omissions, complaints, legal exceptions, agreements never made public, "choreographies of risk"³³ – highlight

the intricate position of Rome: on the one hand, Italy is a sovereign nation that is a longtime US ally and a committed member of NATO, in the context of which hosting the MUOS ground station can arguably be considered as a contribution to collective security and Italy's international credibility;³⁴ on the other hand, however, the politics of local knowledge, advocating for environmental and civil rights, cannot be discounted. The limited jurisdiction and unclear regulatory framework shaping the "heterotopia" of Niscemi produce complex relations with the US Armed Forces, where environmental and civil concerns among the local population take arguably second place to military defence and progress.

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Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming, New York, Bloomsbury Press, 2010.

³⁰ Massimo Zucchetti et al., *Rischi connessi alla realizzazione del MUOS*, cit., p. 87.

³¹ United Nations, *Rio Declaration on Environment and Development (A/CONF.151/26)*, 14 June 1992, [https://undocs.org/en/A/CONF.151/26/Rev.1\(vol.I\)](https://undocs.org/en/A/CONF.151/26/Rev.1(vol.I)).

³² Michel Foucault, *The Order of Things. An Archaeology of the Human Sciences*, New York, Vintage Books, 1973.

³³ Adriana Petryna, *Life Exposed. Biological Citizens after Chernobyl*, Princeton, Princeton University Press, 2002, quoted in Andrea F. Ravenda, *Carbone. Inquinamento industriale,*

salute e politica a Brindisi, Milano, Meltemi, 2018.

³⁴ Stefano Pioppi, "Il Muos serve all'Italia e alla Nato. Rimanga al suo posto (il governo ora lo ha capito). Parla il generale Tricarico", in *Formiche*, 2 November 2018, <https://formiche.net/?p=1045804>.

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Via dei Montecatini, 17

I-00186 Rome, Italy

Tel. +39 066976831

iai@iai.it

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