

Jamming the RIAS. Technical Measures against Western broadcasting in East Germany (GDR) 1945-1989

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1. *The divided Germany: A special case*

In 1963 the German political theorist Carl Schmitt completed a revised edition of his work *The Concept of the Political*, first published in 1927. On this occasion he pondered the relevance and topicality of his definition of the political with regard to the Cold War. The latter, said Schmitt, defied “all the traditional distinctions between war, peace and neutrality, politics and economics, the military and the civil realm, combatants and non-combatants – it is reduced to a distinction between friend and enemy which constitutes its origin and nature”¹. Obviously in making this statement Schmitt attempted to salvage his pre-World War II definition of the distinction between friend and enemy as the core of politics, and to apply it to the rapidly changing world. But actually at the time, just two years after the Berlin Wall had been built, Germans in particular had good reason to point out the antagonistic structure of the conflict: for until 1989/90 the Iron Curtain divided a nation into two competing states whose populations historically considered themselves as one cultural community. In the wake of the Cold War, however, both sides were asked to make a clear commitment to their respective political camps. In the early days, and until well into the 1960s, the concepts of identity offered by both emerging communities relied to a large extent on defining clear dividing lines between themselves and the opponent, using blatant discriminations².

The political confrontation between East and West Germany was particularly acrimonious for the very reason of the “artificial divide“ between the two states and their cultural proximity. For the political leaders, it seemed obvious to exploit the mass media as “powerful tools“ to commit the population to the respective political camps³. Radio broadcasting was initially of particular importance,

1 Schmitt, Carl, *Der Begriff des Politischen. Preface to the 1963 edition* (Berlin: Dunker & Humblot, 1996), p. 18.

2 According to Jan Assmann, this phenomenon regularly occurs in the process of securing the cultural identity of politically instable structures, for example after a change of regime; cf. Jan Assmann, *Das kulturelle Gedächtnis*, München 1997, p. 153ff.

3 Cf. Ruchatz, Jens, ‘Einleitung’, in: Ruchatz, Jens (ed.), *Mediendiskurse deutsch/deutsch* (Weimar: VDG, 2005), pp. 7-22.

not only because it was hugely popular, but also because radio waves could cross the border more or less without any hindrance.

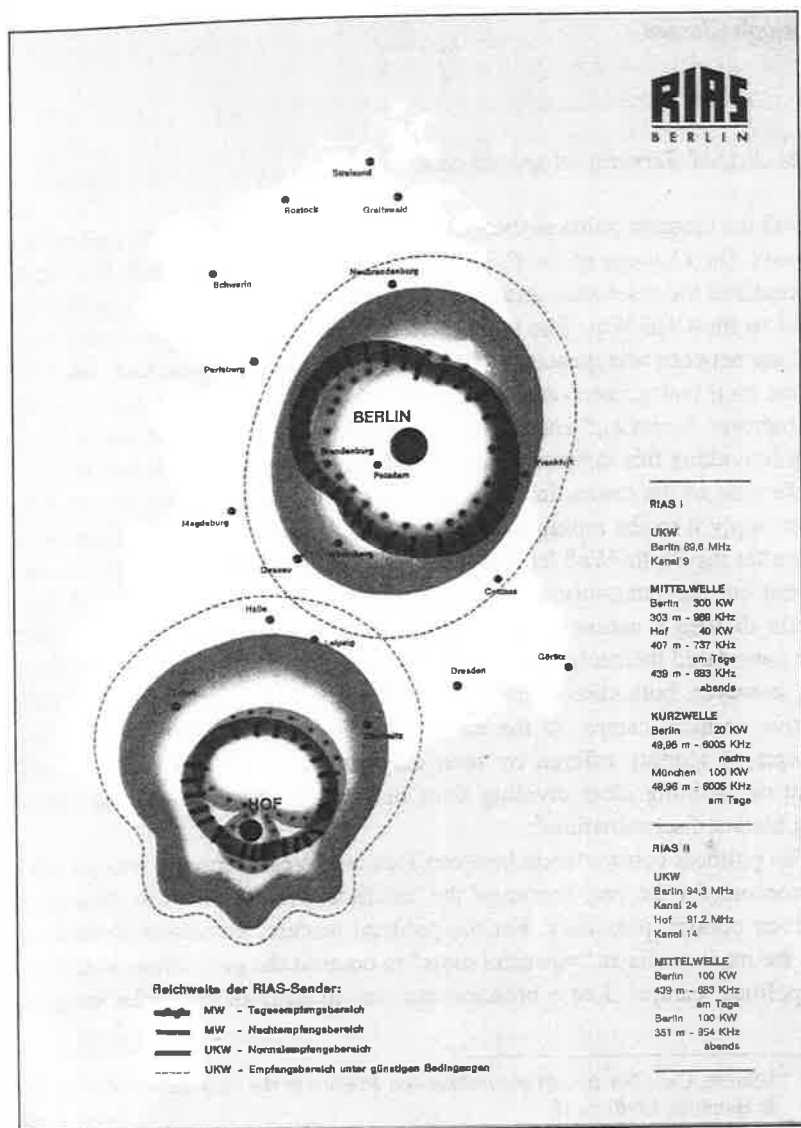


Figure 1: Range of RIAS transmitters in the GDR [Source: DRA Potsdam]

It was only in the 1960s that television gradually took precedence as a leading cultural medium and increasingly became the primary focus of politics⁴. The way the borders were drawn after the Second World War left West Germany in a more favourable position: it was larger and, with Berlin, had an enclave in the middle of the GDR which could be used as a base for broadcasting Western programmes to the northern parts of the GDR. In addition, transmitters located in Bavaria permeated into the southern part of the GDR.

The confrontation of the East and West German media efforts has been characterised as a “cold war in the airwaves”⁵, which reflects quite succinctly how the major players perceived their mission, especially in the first two post-war decades. Certainly, both on an international scale and in the specific German case, the question arises whether the binary logic of friend and enemy is a suitable means to describe complex relationship structures. The relationship between the two German states underwent considerable changes during their forty year separation. Initially both sides assumed that it would only be a matter of time until the other German state could be “liberated”. By the 1960s both East and West Germany increasingly saw themselves as two separate entities. Owing to the policy of détente in the 1970s, but also for purely practical reasons a multitude of mutual arrangements and cooperations evolved⁶.

Far more importantly, the image of the media's function as a weapon in the propaganda battle between the two German states is far too one-dimensional both in a diachronic and socio-historical perspective. While politicians may hope to use the media as a direct vehicle for their interests, in practice it is never that straightforward. Even in dictatorships the media are subject to their own technical and economic constraints which impact on their contents. In addition, the mass media by their nature always rely on social acceptance, in particular if media consumption eludes public control as it does in the case of radio and television broadcasting which is consumed in the private sphere. Furthermore, in the German scenario, Eastern and Western radio and television broadcasters supplied competing programme offers which enhanced audience power in the communicative process and – unlike elsewhere – no cultural or language barriers had to be overcome. Although still common in historical dictatorship research, mod-

4 See Wrage, Henning, *Die Zeit der Kunst. Literatur, Film und Fernsehen in der DDR der 1960er Jahre. Eine Kulturgeschichte in Beispielen* (Heidelberg: Winter, 2009).

5 In 1997, this was the subtitle of an exhibition in Berlin, cf. Zentral- und Landesbibliothek Berlin/Deutsches Rundfunkarchiv Frankfurt a.M./Berlin (eds.), *O-Ton Berlin. Kalter Krieg im Äther* (Berlin, 1997).

6 For the relation between dissociation and interdependence of the two German states cf. Kleßmann, Christoph; Lautzas, Peter (eds.), *Teilung und Integration. Die doppelte deutsche Nachkriegsgeschichte* (Bonn: bpb, 2005).

els of successful manipulative communication developed within the theory of totalitarianism generally fall short because they are fixated on the suppliers, but under these specific circumstances they are particularly inadequate⁷. This paper therefore aims to overcome the one-dimensional view of the media as a “powerful political tool” in favour of an approach that focuses on the evolving interdependencies of politics and the media. At the same time it is important not to lose sight of the changes in the media landscape and the impact of technical developments, economic constraints and audience expectations.

While both German states started out from a similar set of circumstances, there is no doubt that each of them responded very differently. It has been pointed out that, with a few exceptions, from the 1960s onwards West German radio and television programmes contained gradually fewer references to the GDR, while the East German coverage continued to use the West as a negative reference⁸. Clearly the West German media were focusing less on the German question, but followed the lead of the audience who largely expected entertainment⁹, or in more abstract terms: the close link between the media and politics always remained dominant in the GDR¹⁰, while it was increasingly relaxed in West Germany – a change that also left its mark on the public broadcasting system¹¹. The more audience-oriented programming inherent in the Western system correlated with higher media consumption: while the East German media met with very little interest in West Germany since the 1950s, West German programming continued to be attractive and very popular in East Germany¹².

Consequently, unlike in the opposite case, the West German media remained a political challenge for the GDR throughout the forty year separation of the two

7 Cf. Classen, Christoph, ‘Two Types of Propaganda? Thoughts on the Significance of Mass-Media Communications in the Third Reich and the GDR’, *Totalitarian Movements and Political Religions*, 8 (2007), pp. 537-553.

8 Cf. Schildt, Axel, ‘Zwei Staaten – eine Hörfunk- und Fernsehnation. Überlegungen zur Bedeutung der elektronischen Massenmedien in der Geschichte der Kommunikation zwischen der Bundesrepublik und der DDR’, in: Bauerkämper, Arnd et al. (eds.), *Doppelte Zeitgeschichte. Deutsch-deutsche Beziehungen 1945-1990* (Bonn: bpb, 1998), pp. 58-71.

9 Meyen, Michael; Nawratil, Ute, ‘The Viewers: television and everyday life in East Germany’, *Historical Journal of Film, Radio and Television*, 24 (2004), pp. 355-364.

10 Cf. Barck, Simone et al., ‘The Fettered Media: Controlling Public Debate’, in: Jarausch, Konrad (ed.), *Dictatorship as Experience. Towards a Socio-Cultural History of the GDR* (New York, Oxford: Berghahn, 1999), pp. 213-239.

11 Dussel, Konrad, ‘Der Streit um das große U. Die Programmgestaltung des öffentlich-rechtlichen Rundfunks und der Einfluss der Publikumsinteressen 1949-1989’, *Archiv für Sozialgeschichte*, 35 (1995), pp. 255-289.

12 Meyen, Michael, *Hauptsache Unterhaltung. Mediennutzung und Medienbewertung in Deutschland in den 50er Jahren* (Münster: Lit. 2001).

states¹³. Over time the political authorities changed tack in dealing with the widespread consumption of Western radio and television programmes: the head of state, Erich Honecker, officially sanctioned this practice as early as 1972, stating publicly that everyone was entitled to “switch [West German television] on and off at their own discretion”¹⁴. However, in the 1950s and 1960s – and even after Honecker’s statement – the reception of Western broadcasts was heavily obstructed and could entail severe personal reprisals. In East Germany the concept of the political enemy remained intact: even as late as October 1989, the notorious radio and television host Karl-Eduard von Schnitzler, faced with the cancellation of his show “Der schwarze Kanal” (The Black Channel) which commented on West German television and had run for thirty years, wrote to the new General Secretary Egon Krenz: “The concept of the enemy is necessary, his exposure in the class struggle more vital than ever”¹⁵.

The following discussion will therefore cover the technical means used to suppress reception of Western broadcasting, with a particular emphasis on radio which remained the authorities’ primary target until well into the 1970s, when its significance was overtaken by television. This paper will focus on two questions in particular: how intentions and actual impacts related to each other, and how and why the strategies to prevent reception of Western broadcasts changed over time.

2. A side note: understanding media – communist theory

To illustrate the contradictory ways the East dealt with West German media it makes sense to look at the communist concept of media. In this context, it is remarkable how close the links between the concept of mass media and the ascent of the communist movement remained until the collapse of state socialism. Since the late 19th century, the rise of the popular press had led to a growing participation of the population in the political discourse in general, and specifically to the emergence of revolutionary mass movements. Lenin believed that the press was the ideal weapon to fight the class enemy, to mobilise the proletariat for the cause of the enlightened vanguard party and to empower people who were stuck in political immaturity through no fault of their own to become aware

13 For television cf. Dittmar, Claudia, *Feindliches Fernsehen. Das DDR-Fernsehen und seine Strategien im Umgang mit dem westdeutschen Fernsehen* (Bielefeld: transcript, 2008).

14 Quoted from: Geserick, Rolf, *40 Jahre Presse, Rundfunk und Kommunikationspolitik in der DDR* (München: Minerva, 1989), p. 395f.

15 BArch Berlin, Staatl. Komitee für Fernsehen, DR 8/628.

of their own “objective“ interests. As early as 1902, in his political pamphlet *What is to be done?*, he advocated the creation of a centralised press with supervision and structures that would have to be closely tied to those of the party. His belief was based on the conclusion he had drawn from the failure of the Paris Commune: that the revolution required a rigid organisation and leadership to be successful¹⁶. When the “new type of party“ and the vanguard concept with a Bolshevik leadership elite prevailed, the popular press ultimately assumed its primary role of making the masses aware of their revolutionary power and encouraging them to actively overthrow the ruling regime. This conception was based on the contemporary belief that the media had a strong linear impact and could easily be used to manipulate the masses, advanced by the French psychologist Gustave Le Bon in his work *The Crowd: A Study of the Popular Mind*, originally published in 1895.¹⁷ In the early 20th century, both revolutionary leaders and left-wing thought leaders relied on these assumptions about propaganda and the resulting strategies. Characteristic for the time was a positive attitude to mass manipulation techniques and a general overestimation of their impact.

The GDR not only adopted both the pre-Russian Revolution utilitarian concept of the media and the canonical assumptions about their impact prevalent in the early 20th century, but applied them without further ado to more recent media such as radio or television not yet known in Lenin's times. The specific historical context and the history of ideas which had shaped Lenin's thoughts were not taken into account¹⁸. These resulted in the principles of media policy adhered to – at least officially – until the collapse of the regime in autumn 1989: it was vital to achieve optimum use of the regime's own media to develop and consolidate the population's class consciousness. The assumption was that the capitalist society on the other side of the Iron Curtain would do anything to prevent this from happening in order to stop the proletariat from becoming mature and independent.

Accordingly, the liberal ideal of independent media and public space of discourse was completely alien to communist political culture. In a liberal system, so the communists alleged, capitalists would always secure opinion leadership. From this perspective, the West German media did not appear free, but merely as a more or less unmasked tool used by the bourgeoisie to fight against the prole-

16 Ruchatz, Jens, ‘Lenins Medienrevolution als Exempel. Eine medientheoretische Klarstellung’, in: Grampp, Sven et. al. (eds.), *Revolutionsmedien-Medienrevolutionen* (Konstanz: UVK, 2008), pp. 325-346.

17 Le Bon, Gustave, *The Crowd: A Study of the Popular Mind* (New York: Kessinger 1896).

18 Ruchatz, Medienrevolution, p. 335f. (see note 15).

ariat¹⁹. The selective perception of the media as a political tool used to influence and control society, and the belief in an immediate and strong impact made the media appear as a potentially dangerous threat.

Dealing with Western broadcasting: jamming the RIAS

From this perspective, it seemed advisable to curtail the allegedly “manipulative power“ of the capitalist media. One of the options was “jamming“ – using a transmitter tuned to the same or an adjacent frequency to override radio waves. This method had for example been used successfully by Nazi Germany during the Second World War to disrupt the communications of the BBC²⁰. The purpose of jamming was to cause disruptions to an extent that the reception of unwelcome programmes became impossible. While the responsible authorities denied the use of jamming transmitters in the GDR, their existence was an open secret both in East and West Germany²¹. Nevertheless, the jamming transmitters were subject to the strictest secrecy. Even confidential internal documents never expressly mentioned the term jamming transmitters“, but used the euphemism “special facilities“ (“Sonderanlagen“). It is certainly not least for this reason that, even after the end of the GDR, public knowledge of these transmitters remained very limited, and many myths still surround the topic²².

3.1 Setting up the jamming transmitter network in the 1950s

The first attempts at jamming in the GDR date back to 1952²³. They began at the very moment when the popularity of East Germany's own programmes hit rock bottom due to the authorities' efforts to mould radio broadcasting into an instru-

19 The Soviets also used this argument to refute the concept of the „free flow of information“ used by the Americans to legitimise the maintenance of their foreign services. Cf. Jennifer Spohrer's article in this volume.

20 Cf. Andy O'Dwyer's contribution in this volume.

21 Only the Minister of Culture, Johannes R. Becher defended the presence of jamming transmitters in 1955 on the occasion of a discussion meeting in West Berlin; cf. Walter, Gerhard, *Der Rundfunk in der sowjetischen Besatzungszone Deutschlands* (Bonn/Berlin: Deutscher Bundesverlag, 1961), p. 119.

22 So far this topic has not been the subject of in-depth research, possibly owing to the scarcity of source material. The only sound discussion of the topic, albeit focusing on the technical level, is Kullmann, Joachim, ‘Kalter Krieg im Äther: DDR-Störsender gegen den RIAS’, *Funk-Amateur*, 45 (1996), Vol. 1, pp. 29-31; Vol.2, pp. 145-147.

23 Konzeption zum Vorschlag Erhöhung der Wirksamkeit des Sonderanlagen, 14th June 1962, S. 1; BArch Berlin, DM3 BRF II 1800.

ment of political education. As a consequence the audience was switching to Western programmes in large numbers²⁴. It is also likely that the beginnings of jamming were directly linked to the GDR's attempt to build a centralised broadcasting system based on the Soviet model, aimed at transforming broadcasts into a powerful tool for the “systematic implementation of socialism”²⁵. The Soviet Union had started jamming the Russian language services offered by “Voice of America” and the BBC in 1949²⁶. It is certain that by September 1953 the GDR was operating ten major jamming transmitters (with 2 kW each) and 30 smaller ones (50 W each) in order to disrupt the reception of programmes broadcast by the RIAS, the US broadcaster based in West Berlin. This is evident from a confidential letter written by the former Soviet High Commissioner for Germany Vladimir Semyonovich Semyonov to Otto Grotewohl and Walter Ulbricht as representatives of the East German government²⁷. In the same letter Semyonov criticised the “manifestly insufficient” action taken against the “reactionary broadcasts” of the RIAS and demanded among other measures a swift and decisive expansion of the jamming transmitter network.

It is quite probable that the Soviet initiative was a response to the uprising against the East German government on 17th June 1953, which the fledgling state would hardly have survived without the military intervention of the Soviet Union. For the first time the dynamism of the electronic media in times of revolutionary upheaval became manifest²⁸. From the Eastern point of view the live broadcasts of the RIAS had played a key role in the upheaval and its dynamics²⁹.

24 Cf. Classen, Christoph, ‘Revolution im Radio. Zur institutionellen Entwicklung des Hörfunks in der SBZ/DDR 1945-1953’, in: Arnold, Klaus; Classen, Christoph (eds.), *Zwischen Pop und Propaganda. Radio in der DDR* (Berlin: Links, 2004), pp. 47-66.

25 Ibid.

26 At least according to the assumption of Walter, *Der Rundfunk*, p. 116 (see note 21).

27 Semyonov in a letter to Grotewohl and Ulbricht, 21.9.1953 (translation into German), SAPMO-BArch DY 30, NL 90/316.

28 Hans-Hermann Hertle, *Volksaufstand und Herbstrevolution. Die Rolle der West-Medien 1953 und 1989 im Vergleich*, in: Bispinck, Henrik et al. (eds.), *Aufstände im Ostblock. Zur Krisengeschichte des realen Sozialismus* (Berlin: Links 2004), pp. 163-192.

29 Cf. Rexin, Manfred, ‘„Feindsender“ RIAS’, in: Riedel, Heide (ed.), *Mit uns zieht die neue Zeit... 40 Jahre DDR-Medien* (Berlin: Vistas, 1993), pp. 38-42, especially p. 39f.

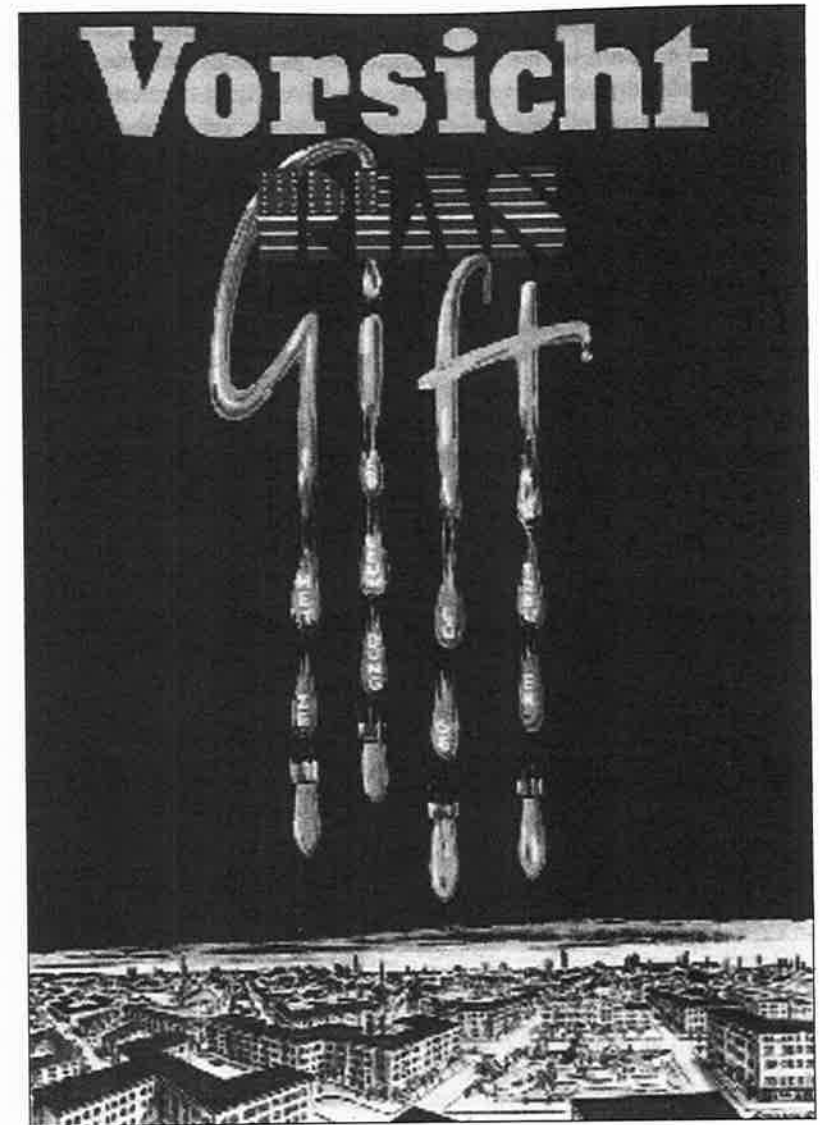


Figure 2: Poster: Caution RIAS Poison 195# [Source: DHM Berlin]

Therefore targeting the RIAS seemed obvious. While East German households could receive other Western radio stations such as the “Sender Freies Berlin” (SFB, until 1954 NWDR-Berlin) which was equally based in West Berlin, the

RIAS – founded as early as 1946 – was unmatched in terms of coverage and popularity³⁰. In addition, as far as the SED party leadership was concerned, the American-controlled markedly anti-communist RIAS fitted the mould of a typical instrument of psychological warfare better than any other broadcaster. SED propaganda denounced RIAS as a “centre of espionage”, and an extension of the American intelligence services³¹. Beyond such exaggerations made for propaganda purposes, this extremely popular radio station was – not entirely without reason – perceived and fought as an active instrument of the American containment and roll back policies³².

In any case the East German authorities immediately complied with the Soviet demands³³. During the following years the postal services quickly established a network of jamming transmitters in order to prevent the reception of the RIAS' programmes on medium and longwave frequencies on a nationwide basis. For this purpose a specific subdivision for “special facilities” was established within the central administration for broadcasting which had been created in 1951³⁴. By 1961, a network of 82 jamming transmitters had been established. The longwave frequency, which existed until 1964, was jammed by one transmitter, while all others targeted the three (and later four) medium wave frequencies: three powerful 5 kW transmitters, 31 medium power transmitters (2 kW),

30 On the early development of the RIAS including audience preferences cf. Galle, Petra, *RIAS Berlin und Berliner Rundfunk 1943-1949. Die Entwicklung ihrer Profile in Programm, Personal und Organisation vor dem Hintergrund des Kalten Krieges* (Münster: Lit., 2003).

31 In 1955, the idea that the RIAS was involved in the intelligence services' attempts to undermine the GDR even led to a show trial against alleged RIAS agents.

32 Cf. Schlosser, Nicholas J., ‘Creating an ‘Atmosphere of Objectivity’: Radio in the American Sector, Objectivity and the United States’ Propaganda Campaign against the German Democratic Republic, 1945–1961’, *German History*, 29 (2011), pp. 610-627; Stöver, Bernd, ‘Radio mit kalkuliertem Risiko. Der RIAS als US-Sender für die DDR 1946-1961’, in: Arnold, Klaus; Classen, Christoph (eds.), *Zwischen Pop und Propaganda. Radio in der DDR* (Berlin: Links, 2004), pp. 209-228.

33 According to a handwritten note dated 8th January 1954: “Weitere Geräte sind in Betrieb genommen” (Further devices have been put into operation); *ibid.*

34 The department names within the East German postal services changed over the period; for example the HV Funkwesen (central administration for broadcasting) was called “Hauptabteilung Rundfunk- und Fernsehbetrieb” from 1961 while the subdivision “Sonderanlagen” (“special facilities”) operated under the name “Gruppe Sonderanlagen und technische Sicherheit Rundfunk und Fernsehen” from early 1972. On 1st January 1975 the subdivision was renamed again and simply called “Betriebe und Verkehr des Funkwesens”. Hence several years before jamming ceased any indication of the measures was eliminated.

and 47 small TF 2 transmitters with 100 W each³⁵. The more powerful transmitters did not send interfering signals; instead within a radius of six to twelve miles they broadcast one of the normal radio programmes on the frequency of the RIAS, and at a greater distance both signals mixed³⁶. In contrast, the smaller transmitters operated with an jamming frequency which ensured that the programme broadcast by the RIAS was blanketed with a continuous loud tone within a radius of 0.6 to 3 miles³⁷. While the powerful facilities officially operated as “normal” radio transmitters and were not disguised, the smaller transmitters which produced jamming signals were solely installed in police stations for security purposes³⁸. For this decision the official distinction between “jamming” and “interference” would have been crucial: only the deliberate use of blatantly interfering signals to jam broadcasts was internationally condemned, while concurrent broadcasts on the heavily used medium wave frequencies were tolerated as inevitable “interference”. The transmitters were gradually altered and equipped to run without operators, only requiring maintenance every four to six weeks³⁹. The number of transmitters alone illustrates the massive effort the authorities made to suppress the coverage of a single Western broadcaster in East Germany. In view of the fact that even in 1958 only 60% of citizens could receive all three East German radio programmes, and 2% even received none at all⁴⁰, this prioritisation is remarkable. At the same time additional challenges had to be addressed such as the development of television broadcasting and a VHF transmitter infrastructure⁴¹. It was a laborious task to acquire the necessary exper-

35 Einschätzung der Wirksamkeit und des derzeitigen Wirkungsgrades der Sonderanlagen in bezug auf die z.Z. im Gebiet der DDR zu empfangenden Rundfunkstationen Westdeutschlands und anderer NATO-Sender; Berlin, no date (1962), Ministerium für Post- und Fernmeldewesen, Teilbestand Rundfunk und Fernsehen, BArch Berlin, DM 3 BRF II 1800.

36 A slight offset from the RIAS frequency also generated an interference whistling tone; *ibid.*, p. 2.

37 Einschätzung der Wirksamkeit... (see footnote 35), p. 3.

38 *Ibid.*

39 *Ibid.*

40 Draft resolution of the State Planning Committee “über die schnellere Entwicklung des Hör- und Fernseh-Rundfunks in der DDR in den Jahren 1959–1960” (on the advancement of radio and television broadcasts in the GDR in 1959-1960), 14th July 1958, BArch, DR 6/662.

41 Cf. Vogel, Andreas, ‘Innovationsprozesse in der Rundfunkgeräteindustrie der BRD und der DDR am Beispiel der Einführung der UKW-Technik’, in: Bär, Johannes; Petzina, Dietmar (eds.), *Innovationsverhalten und Entscheidungsstrukturen. Vergleichende Studien zur Entwicklung im geteilten Deutschland 1945–1990* (Berlin: Duncker & Humblot, 1996), pp. 165–187. (Schriften zur Wirtschafts- und Sozialgeschichte, 48).

tise, and the equipment which was initially manufactured in the GDR proved more or less useless⁴².

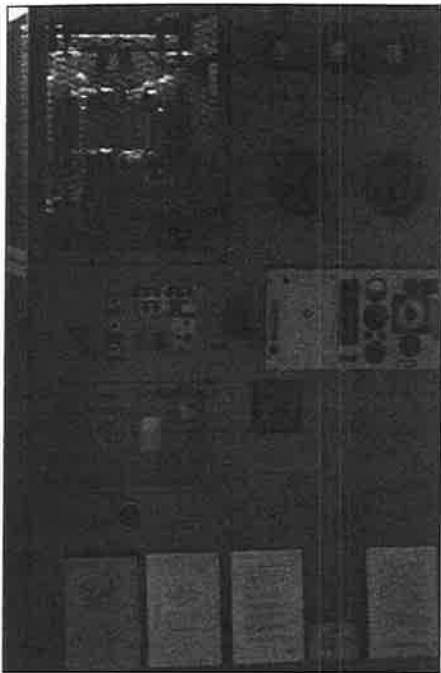


Figure 3: 2 kW interfering transmitter

Apart from the considerable resources required to establish the transmitter network, soon the first difficulties became apparent in the operation of the devices. On a technical level, the transmitters unfortunately did not only disrupt the un-

42 In 1957 a report summarised as follows: "Zusammenfassend kann also gesagt werden, daß die z.Z. in der DDR betriebenen Rundfunksenderanlagen zwar den Möglichkeiten der Industrie, aber nicht dem Stand der Welttechnik entsprechen" (To summarise, the radio transmitter facilities in the GDR correspond to industrial capabilities, but are not on a par with international technology), memorandum „Die Einschätzung des Nachrichtenwesens für den Zeitraum 1950 bis 1960, no date [autumn 1957]; elsewhere a statement says: "Die von uns heute in der DDR bei den Rundfunksendern erreichte Frequenzstabilität liegt wesentlich unter dem Weltstandard und war schon vor 1940 überholt. Gleiches trifft auch auf die Störanfälligkeit unserer Anlagen zu." (The frequency stability currently achieved by our radio transmitters in the GDR is significantly below the international standard and was obsolete before 1940. The same applies to the facilities' susceptibility to interference); cf. Perspektivplan, no date [1957], BArch, DR 6/662.

welcome broadcasts from the West, but also interfered with the GDR's own transmissions. This applied in particular to police radio, which was established during the 1950s. The installation of the smaller transmitters in police stations which initially were chosen for security and secrecy purposes turned out to be a problem: "The transmitters' close proximity causes significant interferences in the radio traffic of the VP [Volkspolizei, i.e. the national police of the German Democratic Republic] or even blocks it completely"⁴³. In case of doubt police radio evidently took precedence, and the jamming transmitters could only operate at certain times which significantly reduced their benefit. The problem was not restricted to police radio. In 1957 the district office for postal services and telecommunication in Neubrandenburg contacted the "special facilities" department regarding the "significant disruptions to the telephone services" and asked to move a transmitter installed in one of their offices. "The transmitters' modulation is [...] audible as soon as the handset is picked up"⁴⁴. Not only had the district office to reimburse telephone charges due to the massive disruptions, so the complaint, but the situation was also unacceptable for the telephone exchange operators, the more so as "constant electrostatic charging occurs"⁴⁵.

In addition to these unintended disruptions of the radio and telephone services, finding suitable locations also proved difficult because various and often conflicting technical and political requirements had to be met: on the one hand the transmitters were supposed to achieve the maximum reach and cover densely populated areas, on the other hand the authorities had to ensure their security and secrecy, and the disruptions had to be strictly limited to the national territory of the GDR⁴⁶. The bulky aerial systems were a major challenge as they had to be installed in publicly accessible areas or on private property for optimum performance. However, this was often not possible because the owners refused permission to use their property⁴⁷.

43 Einschätzung der Wirksamkeit... (see note 35), p. 3

44 Confidential letter dated 28th May 1957, BArch Berlin, DM 3 BRF II 1774B

45 Ibid.

46 "Beim Aufbau der Sonderanlagen wurde von dem Standpunkt ausgegangen, die Leistung und die Standorte der einzelnen Anlagen so zu wählen, daß die unmittelbare Beeinflussung der entsprechenden Sender nur im Gebiet der DDR wirksam wird." (The special facilities were installed with particular attention to capacity and location to enable the restriction of the direct effects of the transmitters to the territory of the GDR); confidential correspondence to the radio administration in Burg, 19th May 1958; BArch DM 3 BRF II 1774B.

47 Einschätzung der Wirksamkeit... (see note 35), p. 4.

3.2 Jamming problems: effectiveness and perception

From the outset the establishment of the transmitter network was therefore hampered by various problems and conflicting goals, with political, technical and economic issues overlapping. In the 1950s the lack of resources alone seems to have slowed down infrastructure development. Efforts to verify the effectiveness of the jamming transmitters began at an early stage. Initially the authorities relied on the services of the Stasi (Ministry for State Security). In March 1954 the Deputy State Secretary for state security, Erich Mielke, ordered that, using the radio sets available “in all district unit offices“, the reception of RIAS broadcasts should be tested “thoroughly for eight days“ to find out “to what extent the broadcasts are still audible“⁴⁸. In order not to overburden the intelligence service officers they were provided with a printed radio dial on which the RIAS frequencies that had to be reviewed were marked⁴⁹. The results were mixed, ranging from a crystal clear reception to a complete suppression of the broadcast. The authorities were hopeful that it was only a question of time before their aim would be achieved: Mielke envisaged the “complete elimination of the possibility to receive the frequencies used by the RIAS“⁵⁰.

Less than a decade later this optimism had vanished. While the field strength measurements now produced by the postal services revealed that there were large areas where it was either very difficult or no longer possible at all to listen to the RIAS on medium or longwave frequencies, according to a confidential report written by the competent postal department in the early 1960s this only affected “about 65% of our Republic's territory“. Far more alarming for the authorities was the fact that “today 70-80% of our population have an undisrupted reception of RIAS“⁵¹. The difference resulted among others from the fact that the RIAS could be received via shortwave and VHF (since 1952) whose frequencies were not jammed.

The possibilities of receiving the RIAS increased in the 1960s with the growing number of VHF radios being used in the GDR. By the mid-1970s, RIAS could virtually be received via VHF throughout the country apart from some areas in the extreme north. Consequently, the medium wave frequencies played an increasingly marginal role as their reach was comparatively limited due to the

48 BStU, BV Leipzig, Leitung 00728/01, Bl. 74.
 49 BStU, BV Leipzig, Leitung 00728/01, Bl. 75.
 50 BStU, BV Leipzig, Leitung 00728/01, Bl. 74.
 51 BArch Berlin, DM 3 BRF II 1800, p. 1f.

jamming⁵². Added to this, all other Western stations could broadcast without disruption which was even then deemed unsatisfactory because “their broadcasts differ little from the RIAS in terms of agitation against the GDR“⁵³. It is not surprising that the report drew a negative conclusion about the jamming transmitters' cost-effectiveness ratio which was deemed “extremely unfavourable“⁵⁴.

Consequently, in 1962 the technical staff at the postal services advised the deputy Postmaster General against a further expansion of the jamming transmitter network. Particularly measures against broadcasters other than the RIAS were considered out of the question due to “lack of transmitter capacity“⁵⁵. In an almost reproachful tone an administrative memo concludes that the investments made to expand the transmitter network since 1952 amounted to around 7.5 million Deutsche Mark (DM). In 1961 alone, the cost totalled DM 1.8 million plus a further 1.7 million in staffing⁵⁶. These figures need to be interpreted in the light of the continuous shortage of funds in the broadcast sector. Only a few months before the heads of programming had sustained cuts of DM 2.7 million⁵⁷.

The technicians therefore focused on making the existing network more effective. Instead of using the more powerful transmitters to broadcast East German programmes on a RIAS frequency, they suggested operating them with a jamming modulation similar to the smaller transmitters, a method used for example in Czechoslovakia. In doing so, their reach would be considerably expanded, and the majority of the smaller transmitters could be decommissioned⁵⁸. Although this method would not enhance the impact of jamming, at least it would improve the cost-effectiveness ratio⁵⁹. It was likely that the technicians hoped to solve the police radio issues simultaneously. As the GDR had no experience of using powerful transmitters for generating jamming tones, an initial test was carried out on a transmitter in Lübben. After “the overall expectations [could] not be met“, a second test was proposed “making full use of the technical

52 Cf. HA Sendetechnik, Analytische Ermittlung der Senderreichweiten des RIAS aus Hörerzuschriften. 1st February 1977; DRA Potsdam, RIAS-Depositum, F 502-03-00/0083.
 53 Einschätzung der Wirksamkeit... (see note 35), p. 1f.
 54 Ibid., p. 4.
 55 Ibid., p. 6.
 56 Konzeption zum Vorschlag Erhöhung der Wirksamkeit des Sonderanlagen, 14th June 1962, p. 1; BArch Berlin, DM3 BRF II 1800.
 57 Hermann Ley (President of the State Radio Committee) in a letter to Reginald Grimmer (Deputy Head of the Department "Agitation" in the SED Central Committee), 2nd February 1962; BArch Berlin, DR 6/594.
 58 Ibid., p. 1.
 59 Einschätzung der Wirksamkeit... (see note 35), p. 6.

capacity⁶⁰. While the second test seems to have been more successful, the Ministry was still not prepared to follow the suggestion to switch all East German transmitters to jamming tones: “The report on the tests carried out at the medium wave facility at Weida was approved. Minister RF [this refers to the Deputy Postmaster General of the GDR who was responsible for radio and television broadcasting] has pointed out on several occasions that specific precautions and security measures will have to be observed while carrying out further tests. He has also requested the submission of the proposed scheme for his approval before this modified mode of operation is implemented. This submission must contain details of the expenditure incurred by the new scheme⁶¹.”

Evidently in the following years neither was the mode of operation changed nor the network expanded. Measurements collated regularly by the West German postal services for the RIAS suggest that, even in the 1970s, East German transmitters invariably used both methods: jamming tones and broadcasting the GDR's own radio programmes⁶². The reasons are obvious: one of the decisive factors would have been that overt disruptions would have discredited the GDR at home and abroad. On an international level in particular, traceable strong jamming transmitters posed a problem because the authorities would not be able to claim that it was a case of regrettable, but unfortunately inevitable “interference”. It is also likely that the clandestine use of the powerful transmitters for jamming was out of the question as they had never been disguised. While the suggestion made by the technical staff of the postal services – increasing the network's efficiency through technical measures – seemed logical from their point of view, it was not viable for the authorities because it caused considerable problems in terms of political legitimacy. This aspect obviously tipped the scales for the political decision-makers.

The existence of jamming transmitters was indeed widely known and very unpopular with the East German population. The responsible broadcasting and postal services officials were consistently challenged over this practice. “Why bother manufacturing large radios in the GDR if the people can only listen to one station? On the medium wave nearly all stations suffer from disruptions caused by jamming transmitters, or you can only hear a “potpourri of waves”, a peti-

60 Protocol 24/62 of the staff meeting with the Deputy Minister, dated 21st July 1962; BArch Berlin, DM 3 BRF II, 2416.

61 Protocol 34/62 of the staff meeting with the Deputy Minister, dated 3rd November 1962; BArch Berlin, DM 3 BRF II, 2416.

62 Cf. Correspondence between the Fernmeldetechnisches Zentralamt der Bundespost (Central Office for Telecommunication of the Bundespost) and the technical management of the RIAS, 2nd September 1977, p. 10; DRA Berlin, Bestand RIAS-Depositem, F506-00-00/0027.

tioner claimed. This petition illustrates a general tendency to attribute all reception problems to jamming⁶³. The demand to “eliminate the jamming transmitters” emerged as early as 1953 in the context of the June uprising, when it was among the most prominent issues raised by both ordinary citizens and official bodies acting on their behalf⁶⁴.

The authorities' response to criticism and official complaints was inevitably the same: the existence of jamming transmitters in the GDR was flatly denied. A report on an audience discussion (“Hörerversammlung”) stated for example: “In the context of technical matters the question ‘Why jamming transmitters?’ was one of the most discussed issues. Our colleagues from the radio and postal administrations explained that no jamming transmitters were installed on GDR territory, and that the whistling and humming noises could be attributed to a capacity overload of medium wave frequencies, and secondly to jamming transmitters installed in the West whose signals are picked up when listening to West German or other foreign stations. (The conversations occurring after the meeting proved that our colleagues were not convinced by these explanations. They still held the view that jamming transmitters existed in the GDR, and that our colleagues from the postal services were not allowed to say so.)⁶⁵.”

The report highlights that the operation of jamming transmitters caused a fundamental credibility problem within the country. If the authorities had admitted the existence of jamming transmitters, not only their political paternalism towards the population would have been revealed, but it may also have been understood as an admission of weakness in the relation to the West. The denial strategy, however, lacked credibility from the outset, and caused a situation in which the population rightly felt lied to by their own government. Furthermore, the authorities' secretiveness led large parts of the audience to believe that difficulties in receiving broadcasters other than the RIAS were also caused by jamming, while in reality they were attributable to other reasons⁶⁶.

63 Correspondence between the personnel of the cable plant in Meißen and the State Radio Committee, 25nd October 1956; BArch Berlin, DR 6/547; cf. also radio correspondent reports on programming, 22nd January 1954; DRA Potsdam, Staatliches Rundfunkkomitee, Büro des Vorsitzenden, F 094-00-00/0002.

64 Correspondence between the trade union management of the Signal- und Fernmeldewerk Dresden and the State Radio Committee, 23rd July 1953; BArch Berlin, DR 6/193; correspondence between the standing commission at the District Council of Karl-Marx-Stadt and the State Radio Committee, 20th November 1956; cf. quotes in Walter, *Der Rundfunk*, p. 117.

65 Protocol of the audience meeting (Hörerversammlung) of the VEB Kraftwerks- und Industriebau Dresden on 16th January 1957; BArch Berlin, DR 6/559.

66 Cf. note 63.

The impact on the GDR's own population was one thing, but the foreign policy issues were equally problematic. They were less acute in the confrontational 1950s and 60s when the East German authorities argued internationally that it was the West that had first breached the 1948 Copenhagen agreement on the coordination of medium and longwave frequencies⁶⁷. They named the RIAS as one of the broadcasters using unauthorised frequencies and transmitter strengths⁶⁸. Besides, so the authorities argued, the Copenhagen Frequency Plan stipulated that medium and longwave frequencies should only be used for national provision, and the RIAS was violating this principle⁶⁹. However, in the 1970s the political climate had changed and become less confrontational. Consequently, jamming increasingly contravened the GDR's intensive efforts to achieve international recognition. An occasion where this became clear was a press conference in the summer of 1975 when a West German correspondent asked the East German deputy foreign minister whether East Germany would stop jamming the RIAS in the course of the CSCE process. The harsh response indirectly revealed that the question had hit a nerve: "in the light of easing international tensions [it is inappropriate] to raise issues which are purely fictitious and do not serve the cause"⁷⁰.

3.3 The end of jamming and a final episode

Only three years later the GDR ceased jamming. The immediate cause was not the signing of the Helsinki Final Act of the CSCE in 1975, but another international agreement which had been negotiated at the same time: the Geneva Frequency Plan. Its aim was to achieve a binding agreement on frequency allocations for Europe and Africa after the provisions of the Copenhagen plan had largely failed⁷¹. The GDR was officially involved for the first time, and internally

67 Cf. Glowczewski, Georg von, 'Der Kopenhagener Wellenplan. Seine politischen, rechtlichen und technischen Folgen für die ARD', in: Lerg, Winfried (eds.), *Rundfunk und Politik 1923–1973, Beiträge zur Rundfunkforschung* (Berlin: Spiess, 1975), pp. 385–410. (Rundfunkforschung, 3).

68 Ibid.

69 This was the line of argument of a Foreign Office representative vis-a-vis a commissioning editor at the RIAS; he also insisted that the GDR had made no attempt to jam the RIAS; cf. Steinke in a letter to Hammerstein, 10th July 1975; DRA Potsdam, RIAS-Depositum, F 502-00-00/47.

70 Quoted from *ibid.*

71 See final acts of the Regional Administrative LF/MF Broadcasting Conference; <http://www.itu.int/pub/R-ACT-RRC.3-1975> (2nd April 2012).

the negotiations were considered as a great success⁷². However, the enhanced international reputation required the GDR to comply with the agreement and to abstain from using frequencies allocated to other countries. Therefore, after 36 years, the era of jamming RIAS broadcasts ended when the Geneva Frequency Plan came into force.

For about a decade it appeared that the history of jamming in the GDR had come to an end, but in fact a sequel was to follow. In 1988, shortly before the fall of the regime, the authorities in Berlin were provoked into targeted and regionally restricted jamming. The background was an alliance between members of the East German opposition and left-wing alternative groups in West Berlin. These groups used the deregulation of the West German broadcasting system to create their own legal VHF radio programme "Radio 100". Since August 1987 Radio 100 scheduled one monthly slot called "Radio Glasnost – Außer Kontrolle" [Radio Glasnost – Beyond Control] which provided a forum for the East German opposition. Added to this, the broadcasts included critical reports by opposition members which were recorded on audio tapes and smuggled over the border⁷³.

The programme's title alone spelled out precisely what it intended to do: to break the information and opinion monopoly of the East German media. Indeed the topics frequently touched on issues considered too delicate or taboo by the responsible authorities in the GDR. Consequently, the programmes sparked a virulent response: the official party newspaper "Neues Deutschland" and even the Soviet newspaper "Prawda" labelled the broadcasts as "torrents of hatred against the GDR" and "counterrevolutionary propaganda"⁷⁴. Shortly after the launch of the broadcasts the Stasi launched a counter-offensive⁷⁵. It culminated in April 1988 with two targeted jamming measures implemented by the Stasi's technical radio unit, designed to foil the reception of the critical broadcasts in East Berlin and the GDR⁷⁶.

72 Council of Ministers of the GDR, 15th March 1976, Information on the results of long and medium wave coordination, Geneva 1975. BArch Berlin, DM 3/14391, pp. 142–156.

73 Cf. Boysen, Jacqueline, '„Radio Glasnost – Außer Kontrolle“. Ein West-Berliner Sender der DDR-Opposition', *Deutschland Archiv*, 44 (2011), Vol. 1, pp. 35–40.

74 *Ibid.*, p. 38.

75 Maßnahmen der Linie IX zur Zurückdrängung und Unterbindung feindlich-negativer Beeinflussung von Bürgern der DDR durch den Sendebeitrag „Radio Glasnost“ vom Westberliner Privatsender „Radio 100“; 23rd September 1987; BStU MfS HA IX/1620, pp. 101–105.

76 Hauptabteilung III, Information zu durchgeführten Maßnahmen gegen die Sendung „Radio Glasnost – außer Kontrolle“, 25th April 1988; BStU MfS ZAIG 6252a Bl. 41–43.

For these two measures that were given the names “David 1“ and “David 2“ initially twelve and then 18 VHF jamming transmitters were deployed, installed in East Berlin and in Potsdam. The technical challenge was to prevent the jamming signals from impacting West Berlin. The effectiveness of the transmitters was checked at 64 monitoring points in and around Berlin. Additionally, unofficial Stasi collaborators were asked to check whether the reception in West Berlin was free from disruptions⁷⁷. However, the jamming measures were neither expanded nor established on a permanent basis. Instead after only a short time Erich Mielke, the Minister of State Security, gave orders to stop the jamming measures “with immediate effect“⁷⁸. It is very likely that these operations had to cease for the same reasons as the efforts to jam the RIAS, but this time the absurd disproportion between the huge effort involved and the limited audience numbers was not the decisive factor. Above all the authorities were concerned that the west would verify evidence of jamming, and that the breach of international agreements consequently would harm the GDR's reputation abroad⁷⁹.

4. Other technical measures: alternatives to jamming?

Jamming was without any doubt the most consistent strategy pursued in the GDR to suppress the reception of Western broadcasts. Concurrently other technical measures were explored, and even implemented. From the outset, the Soviet occupying power had imposed strict regulations on radio broadcasting, starting with the permission in principle to transmit programmes to the civilian population in September 1945. Among other conditions civilians were initially not allowed to use radios with more than three valves⁸⁰, clearly with the aim of preventing the reception of all but regional stations.

77 Ibid.

78 Correspondence of 16th May 1988; MfS ZAIG 6252a, Bl. 62.

79 Boysen, *Radio Glasnost*, p. 39 (see note 73).

80 SMAD Order 78, dated 27th September 1945; Brandenburgisches Landeshauptarchiv (BLHA), Rep. 202 A Büro des Ministerpräsidenten, No. 61; this restriction was lifted again on 20th April 1946; cf. SMAD Order 132; BLHA, Rep. 202 A Büro des Ministerpräsidenten, No. 64.

4.1 Wired radio

In line with this attempt at total information control⁸¹ the Soviet Military Administration in Germany (SMAD) concurrently ordered the establishment of a wired radio network in the Soviet occupation zone which provided radio via cable. Built on previous experiences in Germany and the Soviet Union, this model offered the occupying forces the advantage to supply broadcasts centrally and prevented users from switching to “unwelcome“ alternative stations. In addition, the SMAD hoped to establish an inexpensive infrastructure that would enable them to “feed“ instructions and points of view to the population as widely as possible⁸² within a limited amount of time and resources. This argument is supported by the fact that the wired radio system was designed both for a communal reception with publicly installed loudspeakers and for the home. In fact, by the end of 1946 more than 866 loudspeakers had been installed on roads and in public spaces in more than 100 towns⁸³. However, in spite of reasonable efforts the introduction of the wired radio system in the homes was not workable.

While a trial on a “wired radio test facility in 126 homes in a block of flats in Leipzig-Leutzsch [...] produced promising results“⁸⁴, at the same time it became apparent that the funds required for building the necessary infrastructure could not be raised⁸⁵. The postal services were not prepared to cover the additional costs for electricity and lines from the existing radio licence fees, and passing the cost on to the audience was not considered viable⁸⁶. In the end, the implementation of this model failed because the technology was incapable of providing a

81 Cf. Foitzik, Jan, *Sowjetische Militäradministration in Deutschland 1945-1949 (SMAD)* (Berlin: Akademie-Verlag, 1999), p. 324f.

82 In addition to problems with the installation of transmitter facilities initially there were no production capacities for new radios. Wired radio only required a loudspeaker on the receiver side; cf. memorandum on a meeting of the Zentralverwaltung für Post- und Fernmeldewesen at the Oberpostdirektion Leipzig on 2nd and 3rd September 1946 regarding the expansion of the low frequency wired radio network, Radio Broadcasting Department 5th September 1946; DRA Potsdam, F 201-00-00/0004, Geschäftsunterlagen, Planungsunterlagen Büro des Intendanten 1945-1950, pp. 442-444.

83 On this and the following cf. Verwaltungsbericht der Zentralverwaltung für das Post- und Fernmeldewesen in der SBZ 1945/46; BArch Berlin, DM 3/2457.

84 Ibid., p. 82.

85 “Das Projekt umfasst 11 Millionen Mark, von denen 4 Millionen Mark von den Ländern aufzubringen wären [...]“ (The project will cost 11 million Mark, 4 of which would have to be funded by the federal states); memorandum on a meeting of the Zentralverwaltung für Post- und Fernmeldewesen (see note 83).

86 In addition to a 100 Reichsmark (RM) fee for the wired radio device the monthly radio licence fee would have doubled from RM 2 to 4; cf. Verwaltungsbericht der Zentralverwaltung für das Post- und Fernmeldewesen (see note 83), p. 81.

solution to overcome resource shortage: the GDR lacked both the raw material and production capacity to manufacture the repeaters required for the wired radio infrastructure⁸⁷.

4.2. Fixed frequency receivers

After the June 1953 uprising and the lessons learnt about the influence of radio broadcasting the measures implemented were not limited to expanding the jamming transmitter network which the Soviet High Commissioner Semyonov had recommended in his confidential letter. In the same communication he suggested the manufacture of radio sets which excluded the reception of foreign programmes. He openly referred to the "Volksempfänger" – the radio used during the Nazi regime – as a successful model which he believed had been designed for limited reception⁸⁸. As with jamming, the Germans put his suggestion into practice. The Volkseigene Betrieb (VEB) "Stern-Radio" in Berlin manufactured the "Kolibri" model which was tuned to receive only two stations. The operating manual says: "The device is preset to receive two fixed frequencies used by democratic stations. Users can switch between the two options by moving the slide switch to the left or the right"⁸⁹. Depending on location the model was tuned to different frequencies to enable the reception of two East German stations. All the users could do was some fine-tuning. Although at DM 50 the radio was reasonably priced and an enhanced version was marketed the next year, demand remained sluggish. It was popularly mocked as "Rentnerradio" ("pensioner radio") or "Ulbricht-Vogel" ("Ulbricht bird")⁹⁰. In addition, a logistical

87 "Leider musste die geplante Einführung vorerst noch zurückgestellt werden, da sich ihr sehr erhebliche Schwierigkeiten in der Beschaffung der erforderlichen Rohstoffe und der Freistellung von Industriekapazitäten entgegenstellten." (Unfortunately we had to delay the scheduled introduction for now as it was impeded by significant problems in the procurement of the necessary raw materials and the release of industrial capacities.); cf. Verwaltungsbericht der Zentralverwaltung für das Post- und Fernmeldewesen (see note 83), p. 82.

88 Semyonov in a letter to Grotewohl and Ulbricht, 21st September 1953 (see footnote 27); in fact the models VE 301 and DKE 3 sold under this name were not receivers with a preset reception frequency; owing to their very simple technical specifications the reception of weaker stations (i.e. located further away) was not possible, or only with very poor quality.

89 Cf. Deutsches Rundfunkmuseum e.V.; <http://www.drm-berlin.de/ausstellung-radioge-raete-detail-10167.html> (6th April 2012).

90 Cf. *ibid.*

challenge arose as the correctly tuned radios had to be delivered into the corresponding regions. "Kolibri" was discontinued as early as 1955⁹¹.

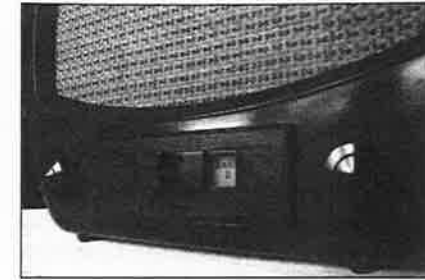


Figure 4: "Kolibri II" by Stern-Radio Berlin (1954/55). In the middle of the image the slider used to switch between GDR programmes "Berlin I" and "Berlin II" is clearly visible.

5. Why jamming ended – or the limits of media as a political tool

The jamming of Western radio stations was based to a large extent on the idea that the population needed protection from the "harmful" influences of capitalism. According to the communist premises on class struggle it was assumed that it was "the capitalist society" or its highest-ranking representatives who were attempting to use the allegedly centrally controlled Western media to manipulate the proletariat and thereby undermine the "first workers state on German territory". Related to this, the conviction that the media had a powerful impact in terms of a direct political interference corresponded to ideas which were particularly prevalent during the first half of the 20th century. From this point of view, the programmes of the Western broadcasters were no less than instruments of psychological warfare, in particular the American-controlled RIAS whose target audience explicitly extended to East Germany and whose coverage had been of considerable importance for the insurgents during the June 1953 uprising. From

91 Cf. Buckow, Anjana, *Zwischen Propaganda und Realpolitik* (Stuttgart: Steiner, 2003), p. 259; apparently remainders of stock have been used as a give-away with East German goods sold abroad; cf. <http://www.wehrmacht-awards.com/forums/show-thread.php?t=354828> (6th April 2012).

the outset the friend and enemy mindset of the Cold War determined the perceptions and related practices in jamming as it did in many other areas⁹².

What would have been more obvious than to suppress reception using technical means? In the early 1950s the authorities clearly believed that it would only be a question of time until the reception of Western broadcasters in the GDR could be completely blocked. However, from the early stages a number of problems and conflicting goals arose on different levels. This became apparent first on the *technical* level. A large number of technical problems were caused by political constraints which required the total secrecy of the jamming measures. These included the disruptions of police radio and telephone transmissions, and also challenges concerning the optimal positioning of transmitters and aerials. The technical capacity was never sufficient to jam all frequencies. However, in the long run it was primarily the rapid innovations in broadcast engineering that proved to be a fundamental problem. In the early 1950s most listeners only owned simple medium wave radios, and the disruptions may have been relatively effective. With the emergence of the VHF network which provided nationwide coverage even in the GDR as early as the 1960s and the availability of more powerful high quality radios, the importance of the jamming transmitters inevitably began to decrease.

This development became even more marked when television was introduced and grew in importance with a dynamic unforeseen in the 1950s: it began to take over the radio's role as the leading medium of information and entertainment in the GDR during the 1960s. Initially some attempts were made to hamper the reception of Western programmes. For example after the wall was built, the East German youth organisation FDJ was mobilised to spoil television aerials directed to the West as part of the "Blitz against NATO broadcasters" campaign. However, no attempts were made to install jamming facilities for television as the technical effort needed was more complex than for radio. The only other intervention made by the authorities was the targeted use of television repeaters for East German stations in individual towns and cities. These transmitters were necessary anyway, but were intentionally operated on the same channel used to broadcast the first West German programme⁹³. Nevertheless, since the 1960s people were able to receive at least one of the three West German programmes nearly everywhere in the country, with the exception of some regions in the

92 See in general Horn, Eva, *The Secret War. Treason, Espionage, and Modern Fiction* (Evanston/Ill.: Northwestern University Press, 2012).

93 In the 1960s for example in large industrial cities such as Jena and Eisenhüttenstadt; for Eisenhüttenstadt cf. Fromm, Günter, 'Eisenhüttenstadt, sein Störsender und die verbotenen Antennen', in: Badstübner, Evamarie (ed.), *Befremdlich anders. Leben in der DDR* (Berlin: Dietz, 2000), pp. 219-232.

extreme south or north east of the GDR. The efforts to jam the RIAS therefore seemed increasingly anachronistic.

The *economic* challenges were inseparably linked to the dynamic development of broadcast technologies. The officials at the Postal Ministry were aware from the early 1960s that despite the significant expenditure only a small number of listeners was actually prevented from receiving Western broadcasts. In fact, the jamming measures still only focused on the medium and longwave frequencies of the RIAS. All other stations and frequencies could be received without hindrance. In view of the GDR's constantly limited resources, the increasing transmitting power of the Western stations that permeated into East Germany represented a permanent challenge. In addition, the pressure to innovate was extremely high in radio and television engineering, which affected transmission, reception and studio technologies. With the development of technical infrastructures – whether VHF, stereo or colour television – inevitably a need arose to fill broadcast slots with attractive and increasingly extensive programme offers. Under these circumstances investments into purely defensive measures such as jamming soon appeared questionable. This is one of the reasons why the expansion of the jamming transmitter network peaked as early as 1960, but then went into decline. Even the competent Postal Ministry department rejected the idea of expanding the network any further. The inclusion of VHF or additional stations was out of the question, not least in view of the prohibitive cost.

As indicated above jamming emanated from political decisions made by the East German and Soviet authorities. It is apparent, however, that in addition to the technical and economic obstacles various conflicting goals arose on an immediate *political* level. The autocratic and dictatorial regimes of the 20th century made a considerable effort to publicly establish their legitimacy, and to demonstrate that their policies reflected the (ostensible) interests of the majority. The SED went to considerable lengths to achieve this goal, but jamming contradicted these efforts on both a domestic and an international level. In order to maintain their credibility, states such as the GDR which claimed to have the better political system had to be prepared to face competition, and not prevent it by force. This legitimacy issue led to a strict secrecy that was unsustainable particularly within the country and therefore had an even more discrediting effect. Internationally, it was equally crucial to avoid the impression that the GDR was jamming Western broadcasters. For this reason, all powerful transmitters broadcast East German programmes on the same frequency as the RIAS throughout the whole period, so they could be classified as interfering stations. The downside of this mode of operation was that it significantly prejudiced the effectiveness of the jamming measures. With the increased efforts to gain international recognition under Honecker, jamming increasingly interfered with the GDR's foreign

policy. The termination of jamming measures in November 1978 was directly connected with the GDR's involvement in the Geneva Frequency Plan.

Under these circumstances the benefits of jamming as a defensive measure would have appeared increasingly questionable from a technical, economical and political point of view. The end of jamming in the late 1970s was without doubt overdue. However, the question remains to be answered why the repressive strategies against the reception of Western broadcasts generally were noticeably softened from the 1970s (taking into account that in addition to the technical measures which are the subject of this paper there was raft of other means, including legal prosecution)⁹⁴. To answer this question, the *social* level of media consumption has to be taken into account. Ultimately, large parts of the audience were not prepared to accept limitations in their freedom to choose programmes, the more so as programme choices were rarely politically motivated. From the 1950s, the radio audience was primarily interested in entertainment programmes which helped them to cope with the burdens of everyday life. The "personal" freedom to choose programmes contravened the communist view of the media being political instruments. In this respect, the fact that the reception of Western broadcasts was increasingly tolerated from the 1970s only sanctioned a long-established practice of media consumption. It was more a case of reluctantly accepting the existing competition than fighting it⁹⁵. Radio and television had become consumer goods which eluded the binary categories of East and West or, to quote Carl Schmitt, friend and enemy. The politicians' attempt to define them as purely political instruments had failed beyond the scope of jamming.

94 Cf. Dittmar, Claudia, 'Television and Politics in the Former East Germany', *CLCweb: Comparative Literature and Culture*, 7 (2005), <<http://docs.lib.purdue.edu/clcweb/vol7/iss4/3>>; however, this was not the end of all reprisals. They continued until well into the 1980s, in particular on the "lower" levels of the system such as schools, universities, etc.; on this topic cf. Hochmuth, Hanno, 'Politisiertes Vergnügen. Zum Konflikt um das Westfernsehen an Schulen in der DDR', in: Häußler, Ulrike; Merkel, Marcus (eds.), *Vergnügen in der DDR* (Berlin: Panama, 2009), pp. 287-303.

95 Cf. Larkey, Edward, 'Radio Reform in the 1980s. RIAS and DT 64 Respond to Private Radio', in: Vowinckel, Annette et. Al. (eds.), *European Cold War Cultures, Perspectives on Eastern and Western European Societies* (New York/Oxford: Berghahn, 2012), pp. 76-93.