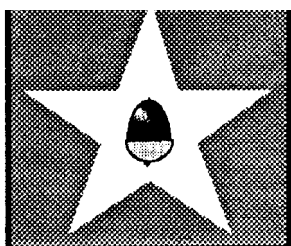# Conflict Studies Research Centre

Gordon Bennett

The Federal Agency of Government Communications & Information

August 2000

C105

Table of Contents

The Federal Agency of Government Communications & Information

Gordon Bennett

Introduction

Among Russia's services, agencies and directorates responsible for security and intelligence work the most secret and at the same time the most costly is the Federal Agency of Government Communications and Information - *Federalnoye Agentstvo Pravitelstvennoy Svyazi* - FAPSI. The agency's original and still its most important tasks are signals intelligence (sigint); electronic interception and cryptoanalysis, and electronic intelligence (elint); and signals intelligence on "non-communications" emissions like radars[1].

The secretiveness of FAPSI, like all its world counterparts, lies mainly in the nature of its activities, ie a lack of any form of physical contact with the object of its interest, when the distance between the observer and the observed can be several thousand miles, and the high level of protection accorded to electronic gathering establishments. Elint and sigint outposts based abroad are almost invariably in friendly or at least not hostile countries, usually well paid for their "hospitality", or in diplomatic compounds. FAPSI is covered by strict security laws. It is forbidden to reveal its plans, orbat, combat readiness documents, numerical strength, training, support services, status of command and control systems, information on mobilisation, transport resources, financial resources, global guidelines, long-term forecasts, modernisation, specification and characteristics of equipment, actual names, information revealing the distribution or use of frequency bands, types of communications and of radar and electronic troop support services, information on dual purpose equipment, Russian exports and imports or technical assistance "if the disclosure of this information could cause diplomatic difficulties for... FAPSI", information revealing the latest scientific achievements relevant to FAPSI activities, information revealing the content and objectives of research, experimental design or planning projects, basic guidelines of programmes for the development of standardisation, on enterprise co-operative relations, expenditure on work, research, design, orders development, production, maintenance, status of the protection of state secrets, security precautions, and many other items[2].

Although since its inception at the end of 1991 FAPSI has grown enormously and has been conducting analytical work, its main task is to intercept and decipher other countries' communications. The agency is therefore a subcontractor providing information for clients to analyse. The cryptographers, engineers, foreign language or area experts employed by FAPSI are there to tackle cryptographic or electronic security issues. They travel infrequently and their very rare contacts with foreign nationals are strictly supervised. Whereas the Soviet and then Russian intelligence officers stationed in foreign countries were there to mingle professionally with the locals or foreign visitors to the country in which they were stationed, those responsible for elint/sigint work were usually allowed brief shopping trips during which they were guarded by their internal security staff. They defect extremely rarely and almost never write their memoirs, partly because of security restrictions and partly because a description of their activities would be understandable only to a very small group of readers and would be a commercial

flop[3]. They know little about the outside world and the outside world knows little about them.

Like all its counterparts FAPSI is also a money-guzzler. Cryptography and every form of telecommunications have always been an expensive business and therefore the budget allocated to them is always higher than the monies given to human intelligence bodies. With the explosion of information technology, the countries determined to stay in the cryptographic first league have no choice but to spend more and more. FAPSI survives, like the whole Russian economy, partly thanks to the favourable price of oil. Pampered in the recent past by Boris Yel'tsin and his administration, it may in the future find itself incorporated into another special service or have some of its functions taken away.

The General Directors

Lieutenant General Anatoliy Grigorevich Beda, the head of the Eighth Chief Directorate of the KGB responsible for communications and cryptography, was responsible for cutting off communications links between Mikhail Gorbachev's holiday compound at Foros and the outside world. Quite rightly regarded by Gorbachev as one of the principal villains of the August 1991 coup, Beda was immediately replaced by one of his deputies Aleksandr Vladimirovich Starovoytov.

Starovoytov was born on 18th October 1940 in Balashov, Saratov Oblast. In 1962, after graduating from the Penza Technical Institute specialising in cryptographic communications systems, Starovoytov joined an enterprise producing special communications equipment for the Soviet special services. By 1986 he was director of a large scientific and production association and a chief designer of a number of cryptographic and communications projects. He joined the KGB in 1984 when still working for the cryptographic industry. Between 1986 and 1991 Starovoytov was deputy head of the Government Communications Troops of the KGB. In September 1997 he became the Chairman of the Russian Federation Security Council's Interdepartmental Commission for Information Security. Army General Starovoytov was also the Chairman of the Co-ordinating Committee for Safeguarding the Security of Cryptographic Systems and their Utilisation and Secret Departmental Communications Systems in the CIS States, and President of the Russian Academy of Cryptography. In 1997 he completed courses at the General Staff Academy. He is also a vice president of the Russian Academy of Engineering Sciences, a member of the Russian Academy of Natural Sciences and of the Russian Academy of Electronic Sciences.

General Starovoytov and several officers regarded as his supporters were dismissed in December 1998. He survived in his post longer than any of his counterparts in other special services because the organisation he led was not physically threatening to anyone in the Kremlin and he supervised its unprecedented development during the economic slump in Russia. He must also have been good at presenting FAPSI's attributes to Yel'tsin and his inner circle, of FAPSI's technical development. Several interviews given by Starovoytov show him to be an excellent PR-man although considering FAPSI's role in information warfare this should not come as a surprise. He finally lost his job because even his staunchest supporters were not able to protect him from the mounting evidence of financial mismanagement in his organisation.

Colonel-General Vladislav Petrovich Sherstyuk replaced Starovoytov in December 1998. He also became the Chairman of the Departmental Communications Systems of the CIS States. Sherstyuk was born in on 16 October 1940 in the old Cossack village of Novoplastunovskaya in the Krasnodar Region. He graduated at the age of 26 from Moscow State University with a degree in Physics and immediately joined the KGB, starting his career as a technician. He climbed the career ladder steadily in the 12th Directorate, responsible for eavesdropping, and then worked in the 8th Chief Directorate responsible for cryptography. In 1995 he was appointed head of FAPSI's Main Directorate of Radioelectronic Intelligence and Communications and in 1998 also a deputy director general of FAPSI. On 24 December 1998 he became Chairman of the Russian Security Council's Interdepartmental Commission on Information Security. Since 13 April 1999 Sherstyuk has been a member of the Security Council. At the end of May 1999 Sherstyuk was transferred to the National Security Council. There were several theories as to the Sherstyuk transfer. Either his leadership of FAPSI was seen as the continuation of the work practices tolerated by his predecessor, or FAPSI was caught napping during the Kosovo conflict, or the Security Council wanted to have a FAPSI insider supervising it from the outside.

Sherstyuk was replaced by Lieutenant-General Vladimir Georgevich Matyukhin. Born on 4 February 1945 in Moscow, Matyukhin started working at the age of 17 as a laboratory technician in the Moscow Pedagogical Institute and then worked briefly in one of Moscow's electronics factories. After graduating from the Moscow Power Engineering Institute, Matyukhin worked in one of the institute's sub-structures and in 1969 joined the KGB. He worked in the 8th Chief Directorate of the KGB studying at the same time (extramural studies) at the Moscow State University's Mechanics and Mathematical Faculty, graduating in 1973. He also has a postgraduate degree from the Higher KGB School. Matyukhin then headed the scientific research centre of FAPSI's Main Security and Communications Directorate. In 1993 he was promoted to FAPSI's deputy general director. He was not popular with his former boss, Starovoytov, because he insisted on stricter security procedures when dealing with foreign contractors or partners.

From the KGB to FAPSI

After the failed coup of August 1991, Gorbachev began dismantling the organisation, starting with the elements responsible for his security.

The first to go was the special group "Alfa". The electronic communications elements of the KGB were next. On 29 August 1991 Gorbachev signed a decree forming a electronic communications and security body, based on the 12th Department responsible mainly for eavesdropping on Government and Party officials, the 8th Chief Directorate tasked with communications and cryptography[4], the 16th Directorate conducting communications interception and two unspecified civilian organisations.

The new body, called The Government Communications Committee (KPS), was given a new boss, Aleksander Starovoytov, previously a deputy head of the Government Communications Directorate[5]. The KPS was an All-Union organisation and consisted of:

the Chief Directorate of Government Communications,

the Chief Directorate of Communications Security (including the Scientific Technical Centre),

the Chief Directorate of Radioelectronic Intelligence,

the Information-Analytical Directorate,

the Directorate of Government Communications of the RSFSR (this directorate was set up after consultations with Boris Yel'tsin),

a Personnel Directorate,

an Administrative Directorate,

a Military Construction Directorate,

a Finance and Planning Directorate,

a Secretariat,

a Commercial Department,

an Organisational and Mobilisation Department,

a Legal Department,

a Security Service,

a Scientific-Technical Council,

Archives,

a Press Centre,

the Orel Higher Military Command School,

the Cryptographic Academy,

and Government Communication Troops.

The KPS was an All-Union organisation and Gorbachev was, in theory at least, its sole master. The KPS lasted until the end of the USSR. On 24 December 1991 Boris Yel'tsin issued a decree establishing the Federal Agency of Government Communications and Information (FAPSI) of the President of the RSFSR. The new organisation included: the State Communications Committee (KPS), the State Data Computer Centre (GIVTs) of the State Emergency Commission, the Moscow Electronic Scientific Research Institute of the Scientific-Production Company "Avtomatika", and individual technical experts from other bodies of the All-Union and the RSFSR KGB[6].

On paper the controlling bodies of FAPSI were the Security Committee of the State Duma, the Control Directorate of the Presidential Administration and the Auditing Chamber of the Ministry of Finances. In reality the sole master of the new organisation was Boris Yel'tsin. Yel'tsin's control of the communications and cryptographic structures was not the first such case in USSR/Russian history. In 1949 Stalin ordered to be set up the Chief Directorate of Special Service (GUSS) which incorporated all bodies working with cryptography. The new directorate was subordinate to the Central Committee of the Communist Party and was supervised personally by Stalin.[7]

The Russian Parliament was presented with the draft of the FAPSI law but it is doubtful whether it had enough time to debate it even in the restricted circle of the defence and security committees. The first reading of the bill On the Federal Organs of Government Communications and Information was considered by the Russian Parliament in mid December 1992[8] and enacted less than two months later[9]. The law stipulates that FAPSI is responsible for the secure communications of all higher state authorities as well as (unspecified) organisations and enterprises both in Russia and abroad. FAPSI's tasks include the development of cryptographic hardware and codes. The agency is also responsible for conducting intelligence involving coded communication (Article 3). Article 5 of Section II of the law gives a list of establishments belonging to the Federal Organs of Communications and Information: FAPSI[10] (including the Cryptographic Academy of the Russian

Federation), organs of Communications and Information in the subjects of the Russian Federation (the centres of government communications and information-analytical organs), troops, educational establishments, scientific-research establishments and enterprises.

FAPSI co-ordinates and organises all federal organs of government communications and information (Point 4 Article 6, Section II) and is responsible for providing senior commanders and the commands of large formations with government communication systems (Section II Article 10v). The federal organs of government communications and information are also allowed to use the forces and means of the Russian Armed Forces (after consultation with the General Staff) and those of the central executive organs, in an emergency (Article 11d). FAPSI is responsible for its own security, including issuing firearms to its military personnel. It is also responsible for acquisition and maintenance of its property and land in Russia and abroad (Article 11sh). Those employed by FAPSI cannot be arrested without the presence of a FAPSI representative or the sanction of a public prosecutor. Those employed by FAPSI are not allowed to strike (Article 13 Point 5). The Director General of FAPSI has at his disposal "the cryptographic reserve" of retired experts and those he sees as suitable members of the team. For this he is allowed to set up a special fund (Article 19). Article 20 gives the President power over FAPSI. The law of 19 February 1993 made FAPSI a highly independent organisation, giving it a legal communications "foothold" in the armed forces and implicit powers of co-ordination of the, until then unknown, regional information-analytical organs. It was also an indication of where some of the Russia's meagre resources would be directed.

Growing Fat

FAPSI was a perfect special tasks organisation for an insecure politician like Boris Yel'tsin. It collected information no other organisation could provide, it was responsible for co-ordinating the special communications network inside Russia and it handled presidential and government communications[11]. And yet it had no powers of investigation, arrest or detention and its counterintelligence work was conducted by outside bodies[12]. Its troops were there only to transmit, snoop electronically and protect its own facilities. Yel'tsin had nothing to fear from FAPSI and quickly accepted that if Russia were to remain a cryptographic superpower the organisation must have a substantial injection of funds[13]. FAPSI might not have been a victim of ideologically motivated purges, but like all other bodies of the old KGB FAPSI's situation was not easy. Working for FAPSI was not especially prestigious and the booming communications market offered many attractive and well paid jobs without draconian security restrictions. There was no money for new research and production of new equipment[14]. A gradual exodus of cadres from the KGB included radio intelligence specialists. Many experts left FAPSI. Some went abroad. They had no problem finding work[15]. The agency knew that for the first time in its history it would have to buy foreign equipment.

These processes were bound to be a security and financial nightmare but also offered opportunities for promotion and enrichment. Vadim Bakatin, the last KGB boss, had realised almost immediately when he took over in the post August-1991 chaos that the KPS leadership has begun to try to get as many promotions to the rank of general as possible and to build up its own empire. While the KGB needed three directorates for its sigint and elint work, KPS needed sixteen. The number of heads and deputy heads of the new structures increased correspondingly[16]. The

number of generals in FAPSI in the mid 1990s was at least 70, whereas similar KGB structures had had 18[17].

New Tasks

With a firmly established legal basis FAPSI faced several major and immediate tasks, to which the Presidential office occasionally added new ones.

1.   FAPSI has **to ensure the security of the government lines of communication**. The government communications systems were controlled first by the KGB and then by the KPS, supervised closely by the Main Protection Directorate and then by the Federal Protection Service.   The communications systems are divided into:

> **A special exchange/switchboard** - for the president, the top presidential staff, the prime minister, his deputies and the heads of power structures.

> **The ATS-1** telephone communication system. It is used by ministers, first deputy ministers and above and strategically important services and agencies.

> **The ATS-2** is for deputy ministers, heads of directorates and departments and other officials at their level.

> **A VCh** (High Frequency) **intercity network** which allows the centre to communicate with regional leaders[18].

ATS 1 & 2 are now controlled by the Federal Protection Service. However FAPSI is responsible for cryptographic security of all government lines and special telephone exchanges[19].

The Main Directorate of Government Communications is a subunit of FAPSI and supports the organisation, development, upgrading and security of government and other systems of special communications for Russian Federation state authorities, state authorities at the local level, federal executive authorities, the Security Council and other organisations. FAPSI is also responsible for servicing and maintenance of equipment of government and other types of special communications in the city of Moscow and Moscow area. The directorate has operational-technical control over government communications centres around Russia[20]. It controls mobile Government Communications Troops able to provide the Russian leaders with information under field conditions in any emergency situation.

The Government Communications Troops are expected to provide communications for the military leadership if their networks are either down or do not function sufficiently well.   Their Commander, Lieutenant-General Oleg Vasilevich Ivanov, claimed that his troops were capable of deploying a field communications network, a component of the Russian Integrated Confidential State Communications System, anywhere in Russia[21]. The troops had been reduced by 20% by the end of 1997. They have bases in four regional directorates within the military districts of Transbaykal, the Far East, the North West and the North Caucasus.[22]   Like all other military organisations in Russia the Government Communications Troops are experiencing financial and staffing problems.   Only

about one-third of soldiers and sergeants are contract/professional troops. The rest have to be selected from the conscript pool.

2. An equally important task facing FAPSI is **intercepting and decoding foreign open and encrypted communications**. Past Soviet cryptographic successes were often the result of its human intelligence, and assistance provided by other KGB directorates or even other countries[23]. However by the beginning of the 1990s Moscow had lost all its Warsaw Pact allies, most of its outposts in the FSU republics, its space assets were ageing rapidly with no replacement in sight, and the naval intelligence assets were dwindling fast.

3. **Modernisation of some of its equipment** became yet another priority task. Many of the problems had already appeared during the KGB era of plenty. In August 1991 Major-General Vladimir Grigorevich Volkov, first deputy chief of the KGB centre for government communications, identified some of the problems facing the Soviet electronic security and intelligence bodies. Those were:
- changing state structures,
- increased regional conflicts,
- the USSR's economic difficulties resulting in a reduced budget,
- the increasing cost of scientific R & D,
- the increasing cost of scientific equipment,
- a monopoly of enterprises producing communication and cryptographic equipment [24].

The USSR also tried, unsuccessfully, to match the West in the production of digital transmission and changing frequencies systems. At the beginning of the 1990s FAPSI had chosen Siemens as its main foreign supplier of computer hardware[25]. Siemens offered an attractive range of products, the Russians could count on almost limitless political goodwill in Bonn and the German special services held fewer secrets for the Russians than their counterparts in other NATO countries, courtesy of the by then defunct East German intelligence service, the HVA.

4. **Re-establishing or maintaining close contacts with former Soviet republics** was also one of FAPSI's top priorities. Like all other Directorates, Departments and Services of the KGB the KPS and later FAPSI encountered many problems with the gradual disintegration of the USSR and the increasingly independent republics. The KGB Communications Troops lost about half of their units to the republics. This was an important loss because their presence was insignificant only in Moldova and Armenia[26]. The outposts in the republics were important as they either provided intelligence or served as relay stations. Some of the republics had training facilities. The loss of the republics also meant loss of equipment. After the first rush to ship the most valuable equipment back to Russia, Moscow had to accept that the rest of the communications hardware left behind in the republics now belonged to them, but the KPS was eager to co-ordinate the activities of their republican counterparts. General Starovoytov tried to create an interrepublican Coordination Committee for Government Communications. The three new Baltic states did not accept the offer; the others, less hostile towards Moscow, had little choice, and no secrets Russia did not already know.

Russia could not hope for any form of co-operation from the Baltic republics, although the Signals Intelligence Station in Juri (Estonia) continued its activities well into 1993. The government of prime minister Savisaar had allowed the station, shared by FAPSI and the GRU, to stay. The station allegedly had the capabilities to

eavesdrop on telephone conversations in Estonia and the whole region within a 5,000 km range[27].

Russia's southern and western neighbours were more receptive to Moscow's overtures. They may have taken over the Soviet communications network and equipment on their territory but without further technical assistance and training of personnel there was very little they could do with it. The West was not queuing to offer free cryptographic equipment or the required expertise and the Russians were ready to step in, offering good value for money. On 15 May 1992, in Tashkent, 10 CIS heads of state signed an agreement on ensuring the security of the means of encryption, and setting up the Government Communications Co-ordinating Council[28]. The council would control and co-ordinate operations of all government communications services within the CIS. The Council was officially established on 23 June 1993[29] and meets more frequently than other CIS special services. In the mid 1990s Russia developed a new generation of encoders and provided codes for many CIS states[30].

On 13 May 1998 the council met in Moscow for the eighth time since its inception to discuss and improve co-operation on security of means of encryption and their use in the government and state communications systems[31]. Between 2 and 5 September 1998 the CIS member states Government Communications Organs and Troops held joint exercises, "Commonwealth-98"[32]. The first such exercise, on a much smaller scale, took place in October 1996. In the "Commonwealth-98" exercise the original "troika" of Russia, Belarus and Ukraine was joined by Kazakhstan, Uzbekistan, Tajikistan, Turkmenistan, Kyrgyzstan and Armenia. The then director general of FAPSI, Starovoytov, noted at the end of the exercise that with sufficient state support the Russian government communications organs and troops would be completely "retooled" with the security safety margin assessed at 15-20 years.

FAPSI also has bilateral agreements with several CIS member states and one such agreement allowed it to take over a testing site in Kazakhstan abandoned by the Soviet Army[33]. Russia has also signed intergovernmental agreements with Kazakhstan and Ukraine on information protection and in 1997 was preparing to sign a similar agreement with Belarus[34].

FAPSI is also looking at the CIS commercial market. Russian experts were troubled by what they described as cheap imported automatic telephone exchanges purchased by some of the companies supplying defence equipment. They were easy to bug and to jam by a potential enemy[35].

5.   **Commercialisation**. The tasks facing FAPSI on the commercial market were equally challenging. The political leadership in Russia decided that all communications networks would be controlled by FAPSI. FAPSI was also to have access to all commercial encoded communications. After the dissolution of the Communist Party of the Soviet Union the KPS FAPSI found itself with a surplus of secure communications lines all over the FSU. This presented it with many opportunities. By offering some of the lines and facilities to banks and enterprises it could earn money, have access to their communications and was able to offer them, again on a commercial basis, their own encryption hardware and software.

Boris Yel'tsin's Favourite Agency

Strengthening FAPSI was not politically dangerous for Boris Yel'tsin. Unlike the Federal Security Service (FSB) or the Interior Ministry (MVD), FAPSI was not a threat to anyone[36]. Lawmakers and public opinion are usually interested in the transgressions of special services only when the human element is involved. The experience of Western countries shows that the individuals or groups challenging the activities of the state technical "eyes and ears" conduct thorough research of their subject, their campaigns have an ideological or political agenda but the activists are almost exclusively preoccupied with their special services' domestic activities. Those opposing special services in less developed countries are concerned by more mundane issues such as their physical violence, methods of arrest, imprisonment and interrogation rather than their modest sigint/elint activities. FAPSI could hardly even be called a power structure and the accusations that even the telephone lines at the State Duma were bugged surprised no one, offended very few and could always be blamed on the FSB[37]. The open sources research publications on which potential challengers of Yel'tsin's growing power could base their knowledge began to appear only at the end of the 1990s[38].

In September 1992 Yel'tsin issued Directive No 536 setting up the Scientific Technical Centre of Legal Information "Sistema", partially financed by the State Property Committee. The Centre was to co-ordinate work on information and telecommunication technologies, create a legal information system, updating the reference database of legal information and assure its accessibility for authorised users[39]. This would give Yel'tsin a legal weapon in his increasingly acrimonious relationship with the Parliament. He had just been forced to split up the Ministry of Security and Internal Affairs, declared by the Constitutional Court to be illegal, and must have had a plan, with the help of modern technologies, to get the information he required from around the country. "Sistema" was probably a product of the Presidential Main Directorate of Information Resources, set up in February 1992 and later transferred to FAPSI. The next step was the foundation of the Russian Governmental Information Network, in accordance with presidential decree No 963 of 28 June 1993, aimed at creating a unified information-legal space covering the main organs of state authority of the Russian Federation. The scientific-technical centre "Sistema" was to be the focal point of the previous undertakings and was to contain a database of all legal acts in force in Russia and selected international laws, especially those concerning the CIS countries.

In April 1995 Boris Yel'tsin ordered a new Federal Centre for Protection of Economic Information. The centre was to be supervised by FAPSI. The growing power of several Russian companies and banks, the development of their security services and increasing telecommunication links between Russia and other countries prompted Yel'tsin to issue on 3 April 1995 Edict No 334 "On Measures Relevant to the Observance of Legality in the Field of the Development, Production, Sale and Operation of Encryption Systems, as Well as the Provision of Services in the Field of the Encryption of Data". With this decree, Yel'tsin ordered a construction of the secure Special Purpose Federal Information and Telecommunications Systems (ITKS) for the state administrative agencies. The programme was given presidential status and was approved as a federal special programme by Russian Government Decree No 97-4 on 2 February 1996. The information contributors to the system are:
>   the Ministry of Foreign Affairs,
>   the Ministry of Foreign Economic relations,
>   the MOD,

the FSB,
the Foreign Intelligence Service (SVR),
the MVD,
the Emergencies Ministry (MChS),
FAPSI and other unspecified bodies[40].

The ITKS was to be based on the Presidential Information Analysis Centre which was linked with departmental and regional centres responsible for data-processing and analysis. Small centres were also to be set up in organisations and institutions, and mobile centres in case of war or national emergency[41].

Decree 334 made FAPSI the sole master of any coded communications in Russia and allowed it to inspect any commercial communications network. Article 4 reads: "In the interests of information security in the Russian Federation and intensification of the struggle against organised crime the activity of corporate entities and individuals associated with the development, production, sale and use of coding devices, as well as protected technical systems for storage, processing and transmission of information, providing services in the field of information coding, is forbidden without licences issued by the Federal Agency for Governmental Communication and Information (FAPSI)"[42].

Yel'tsin also issued an edict, published for the first time on 23 August 1995, "On Developing and Creating the Russian Federation State Automated System "Vybory". The main creators of the system were FAPSI and the presidential Committee of Information Support Policy. The modern, computerised system would reach every territorial electoral commission and link it with the Central Electoral Commission. It would allow it to monitor elections at regional (rayon) level and count votes. It was to reach all Russia's 3000 or so regions but the heads of the regional administrations would not have access to it. It was expected to cost the federal budget 100bn (old) roubles and be completed by the beginning of 1996. FAPSI was to be responsible for the technical and software aspect of the programme. "Vybory" was to be tamper-proof thanks to a 32-bit cyclical code[43]. This system is only for the executive branch of power and electoral bodies. One of many questions asked by the critics of the system was what would it do between elections and revising voters' rolls. The answer from Moscow was that they would conduct sociological studies and analysis. The questions for whom would this work be undertaken, who would conduct it and who would pay for it have never been answered. The only body capable of processing, transmitting and storing the information would be FAPSI.

On 9 April 1996 Boris Yel'tsin signed Presidential Directive No 171 creating the Russian Federation Situation Centre[44]. FAPSI was entrusted with responsibility for the development of the system and with allocating staff to ensure 24-hour functioning of the centre. The man in charge of the centre was to be the president.

FAPSI also runs the electronic communication links of both chambers of the Russian Parliament[45], and controls a data bank which consists of several integrated databases: economic, socio-political, legal, passport, special information, a sociological compendium of opinion polls, population, ecological problems, geographic/economic, business and market and emergency situations[46]. The FAPSI information centre "Kontur", on the outskirts of Moscow, includes a database from 1,500 publications, statistical information and analysis concerning various aspects of the political situation in Russia. Material covering the last three months is

available online on the internal network[47]. In co-operation with the Ministry for Emergency Situations the "Kontur" centre works on forecasting natural disasters.

FAPSI also runs the Regional Information Analysis Centres (RIATs) located in 58 regions of Russia. The centres analyse 1200 regional publications and send their analysis to Moscow. The regions which have no such centres have 2-3 men[48] Departmental Information Analysis Centres (VIATs). The total number of information analysis centres was approaching three hundred by the end of 1999. This type of work would have been more appropriate for the FSB. By putting the centres under FAPSI's supervision Yel'tsin was trying to separate investigative bodies and those with powers of detention from information gathering and analytical structures. The regional leaders were less than enthusiastic about the new snoop centres. Not only were they Moscow's information gathering outposts in the regions but the regions had to subsidise them as well[49].

Not Quite A Power Structure But …

The president of the Russian Federation is briefed every day by the FAPSI director general on 5-6 most important subjects[50]. Some of these briefings are conducted through the secure communications system but General Starovoytov reported to President Yel'tsin personally on all the most serious issues requiring his decision[51]. The President receives 80% of all intelligence information from the FAPSI Operating Centre.

FAPSI's role was described clearly and succinctly in 1997 by its director general: "FAPSI is the technological basis for the system of governing the country and its Armed Forces[52]. Its primary functions include:
>   Interception of foreign cipher communications
>   -   mathematical basis
>   -   shielding from electromagnetic and acoustic "leakage"
>   Global Eavesdropping
>   Cipher Communications of the Russian leadership
>   Cipher Communications of the SVR, Foreign Ministry and to some extent the FSB
>   Provision of communications for the SVR based in Yasenevo
>   Security of cipher communication
>   Supervision and development of new cipher equipment
>   Production of cipher keys
>   Training of cipher personnel
>   Development of new cipher equipment
>   Government Communication (and security thereof)
>   New cipher communications abroad
>   Communication with illegals
>   In house communications
>   Nuclear wartime cipher communications
>   Design and production of encoding and decoding equipment
>   Communications security
>   All aspects of information warfare.

Presidential communication when abroad is handled by a special subunit of the Federal Protection Service with the necessary technical assistance from FAPSI[53].

FAPSI has its own "Istok" highly secure information network[54]. More than 1,000 phone calls pass daily through FAPSI's main switchboard. Every day FAPSI has 15

to 25 communications posts in action throughout Russia reporting on life-threatening emergency situations[55]. The other secure networks at FAPSI's disposal include the Soviet all-union high frequency communication system "Kaskad", "Iskra", "Teleks"[56] and TfOP (tropospheric communication). The Soviet Union had a parallel country-wide secure telephone system with communications centres in many large Soviet cities (Krasnodar, Omsk, Novosibirsk, Krasnoyarsk, Irkutsk, Leningrad, Vladivostok and others) which could operate independently in case of military conflict[57]. "Kaskad" had during the Soviet era 40,000 outposts around the USSR. The free market reforms divided "Kaskad" into 26 separate bodies. The disappearance of the USSR and dramatic reduction of communications troops "liberated " many lines in some very remote parts of Russia. "Kaskad" is used nowadays by the Russian oil and gas companies among others. The plans drawn up after August 1991 envisaged 50 all-inclusive communications centres around Russia. By 1997 half of them were already functioning.

All private companies specialising in IT security must obtain a FAPSI licence. By mid 1995 250 companies were working on computer security but only 53 applied for the appropriate licence. In mid 1997 the number of companies on the computer security market was the same but only 17 more companies had applied for the FAPSI licence[58]. FAPSI is responsible for the global radio-electronic intelligence from around the world and technical checks on computer equipment bought in the West which are to be installed in sensitive areas. The agency is also responsible for the electronic security of the Central Bank of Russia, and controls or monitors, to various degrees, the communications systems of other Russian banks and the Bankir satellite communication system.

FAPSI and the FSB are the two regulators working with the State Committee for Communications Oversight supervising the compliance of the Ministry of Communications with the five principal federal laws on communications[59]. FAPSI should also be the provider of cipher clerks for the SVR and occasionally for FSB communications abroad. Because the FSB has developed its own cryptographic expertise and its relationship with FAPSI has been acrimonious that might not be the case, but the agency is still the supplier of secure communications equipment[60].

The agency either controls or has a strong influence over the following establishments belonging to the Enterprises and Organisations of Information Technologies Financial Production Group.

1) Avtomatika RGNPO, Scientific Research Institute of Automation, Moscow,
2) Avtomatika RGNPO, Penza,
3) Scientific Research Institute of Special Information Measurement Systems, Rostov-na-Donu,
4) Kaluga Electromechanical Plant,
5) Elektropribor production association, Penza,
6) Almaz State enterprise, Rostov-na-Donu,
7) Signal Scientific Production Association, St Petersburg,
8) Bashkir Progress Production Association, Ufa,
9) Avtomatika Scientific Production Association, Yekaterinburg,
10) Krasnaya Zarya Plant, St Petersburg,
11) Krasnoyarsk Electronic Plant Production,
12) Radio Communications Research Institute, Rostov-na-Donu,
13) Krasnodar Selena Design Office,
14) Krasnodar Instrument Factory,

15) The Centre of Information Technologies and Systems of Agencies of Executive Authority, Moscow,
16) Masshtab Research Institute, St Petersburg,
17) Delta Research Institute, St Petersburg,
18) Krasnaya Zarya State Scientific Production Complex, St Petersburg,
19) Kvant Research Institute, Kvant Special Administration, Moscow,
20) Kaluga Telegraph Equipment State Enterprise,
21) Kaluga Research Institute of Remotely Controlled Devices,
22) Scientific Research Institute of Industrial Materials and Synthetic Leather, Ivanovo,
23) Dalnaya Svyaz Scientific Production Association, St Petersburg,
24) Vega Research Institute, Voronezh,
25) M V Khrunichev State Space Research Centre, Moscow[61].

FAPSI has received orders for the manufacture of special, three-level protection holograms from the State Technical Commission and the MVD. It also works on holograms for the Russian passports[62].

FAPSI & Information War

FAPSI is also the unofficial Ministry of Information Warfare of the Russian Federation because, in case of a conflict with an industrialised nation it would be the only Russian organisation which might succeed in hacking its way through to and infecting enemies' communications and computer systems. FAPSI also co-ordinates information warfare organs in ministries, agencies and services and is the only organisation capable of defending the comparable Russian structures[63].

First Deputy General of FAPSI Vladimir Ignatevich Markomenko described four main elements of information war.[64]

1) The suppression of components of the infrastructure of state and military administration (destruction of command and control centres); electromagnetic pressure on components of the information and telecommunications system (electronic warfare)
2) Acquisition of intelligence through intercepting and deciphering information flows transmitted via communications channels, also though spurious radiation, and through electronic information intercepting devices especially planted in premises and in technical systems (electronic intelligence)
3) Unauthorised access to information resources (by the use of software and hardware for penetrating systems for the protection of enemy information and telecommunications systems) with subsequent distortion, destruction, or theft, or a disruption of the normal operations of these systems (hacker warfare)
4) Formation and mass dissemination by enemy information channels or global data interaction networks of disinformation or tendentious information for influencing the opinions, intentions, and orientation of society and decisionmakers (psychological warfare).

The concept also includes collection and processing of open source information.

Russia's Armed Forces would be the main supressor of the infrastructure of state and military administration of an enemy but FAPSI would be expected to perform tasks 2-4. When it comes to defence and preventive measures in preparation for

future conflict involving information warfare Markomenko has expressed his concern about the conditions which favour the use of "information weapons" against Russia: the extensive use of foreign computers and communications technology, the attempt by state and commercial structures to create unmonitored and uncoordinated telecommunication systems, foreign owned telecommunications networks and distribution in Russia of encryption software and hardware systems unlicensed by FAPSI[65]. If the worries about the encryption software and hardware are understandable in many developed industrialised democracies, General Markomenko's concerns must also have been voiced with equal conviction by his superiors in the Soviet "period of stagnation". Markomenko's concerns are based also on FAPSI's commercial interests (see below). In 1997 a deputy director of FAPSI promoted since to director general, Vladimir Matyukhin, said that many organisations which prefer imported security systems become their hostages because they do not ensure protection of data bases, information flows or telecommunication lines. Only the equipment provided by FAPSI guarantees information security. He added that the single cryptographic area - "Russian Business Network" - was almost complete. The network was to assure not only the security of information flow in state structures but also in private banks and companies[66].

FAPSI Goes Commercial

With the disappearance of the Warsaw Pact and then USSR, FAPSI lost most of its assets outside Russia. It acquired, however, several communications networks from the abolished Communist Party of the Soviet Union and increasing control over the communications systems of large, strategically important companies and banks. In the increasingly privatised world of secure electronic communication in Russia FAPSI is the undisputed ruler. At the beginning the agency began to rent some of its communication lines, and also sold some of its radio frequencies to commercial enterprises[67]. It created its own commercial organisation run by its former officers in active reserve. They had to observe security regulations but operated in accordance with market rules[68]. FAPSI's first client was thought to be a certain AMT joint venture, which then emerged as a FAPSI company. Through the commercial organisations, under the FAPSI umbrella, the retired officers made money selling to and buying from Russian and foreign companies. Their technical competence was unquestionable, but they had no knowledge of trade or commercial law and they did not intend to learn, because covered by secrecy rules and feeling the support of a powerful security agency, they felt above the law.

Worried about increasing economic chaos, Yel'tsin tasked FAPSI with creating a national telecommunications system able to monitor operations on the financial market. The funds would come from the compulsory clients/victims of the system. A special fund was set up for storing and processing financial market information. The Federal Commercial Information Protection Centre was set up in the spring of 1995 as a FAPSI directorate[69].

In 1996 FAPSI together with one of its commercial offspring, the Scientific – Technical Centre "Atlas" set up the "Business Network" company accessible to paying clients. The Chairman of the Network was Aleksey Soldatov, the Chairman of the Rostelkom company, also linked with FAPSI. The network was intended for secure information exchange between Russia's financial, scientific and public organisations and enterprises both state and private. FAPSI guaranteed a high

level of security for the network but also had complete access to it. "Business Network" was in fact the agency's own "Atlas" network[70].

The agency claims that facing superior Western technology, the USSR was obliged to invest heavily in cryptology and thus in creating unbreakable codes. This is why, claims FAPSI, Russia is the only country capable of providing 100% security for the users of their information-telecommunications systems. The system has been allegedly tested by foreign special services' attempts to penetrate the Soviet information-telecommunication network. They failed[71].

The FAPSI commercial company Atlas also offers, since 1998, a fast pager service covering 15 Russian cities. The pager network uses equipment supplied by Ericksson and was planned for 600,000 subscribers with the possibility of further expansion. FAPSI took part in providing the Russian Central Bank with an electronic security system worth $5m. The system is based on the equipment produced by "Digital". Transaction security is assured by six Alpha-8400 supercomputers and 12 smaller computers[72]. The Penza Electronic Scientific Research Institute belonging to FAPSI took part in developing the data protection system for the Central Bank. Its responsibility for the oversight of the Russian market information security systems is shared by FAPSI and the State Technical Commission.

Through its control of banking communications systems FAPSI was able to monitor many of them[73]. It had the power to ward off any foreign company attempting to enter the Russian communications market by refusing to issue the appropriate licence[74]. The S.W.I.F.T. interbank telecommunication company was offered a licence to import S.W.I.F.T. systems to Russia but not to operate on Russian territory[75]. The licensing system is, in the best Russian tradition, complicated and vague. FAPSI has been issuing licences for the software in the state and private institutions. However the State Technical Commission – Gostekhkomissiya - appears to have jurisdiction over some aspects of private companies' telecommunications systems[76].

The State Technical Commission, under Vice Admiral Viktor Virkovskiy, signed a joint resolution with FAPSI on "State Licensing of Activity in the Information Security Field" giving it the right to monitor the market for information security systems other than cryptographic. FAPSI is responsible for providing all cryptographic systems[77]. To enforce the licensing system in 1996 the Interdepartmental Commission for the Protection of State Secrets was set up. The commission is to regulate licensing and certification bodies. Companies and individuals are not allowed to develop their own computer security systems but must buy those already available, and with a licence. Out of 23 security systems for Internet users licensed by FAPSI, 21 are produced by the same company. The certification process takes a year and modernisation and updates need certifications as well. FAPSI does not have to refuse to issue a licence. It can sit on the paperwork long enough to make the system it is asked to certify obsolescent and jeopardise the security of the company. Those developing, producing, operating, and selling encryption systems must also have a licence. The lawbreakers can be identified by the FSB and the MVD. Violation of licensing procedures is a crime. FAPSI is against any telecommunication system, internal or international, which it cannot control or monitor. To serve the Russian organs of state power FAPSI developed Russian Government Internet Network. FAPSI also operates local "Intranet" networks which appear to be sanitised and selected Internet information is stored and available locally[78]. In May 1998 FAPSI advertised

a system of secure coding equipment for mobile telephones permitting transmission of coded files and faxes. The price of one terminal was $17,000[79].

General Starovoytov complained that due to his organisation's financial problems it was obliged to sell some of its products abroad[80]. Many of these products were no longer secret because the Soviet Union had installed cryptographic equipment in the Warsaw Pact member countries to which it had no claim after the collapse of the organisation. The KGB had also lost some of its enciphering equipment in the Baltic countries[81]. FAPSI therefore decided to perform the equivalent of cryptological respraying of the old equipment and set about selling their old technology to clients who don't mind if Russia reads their mail. FAPSI held the "Communications Expocom–97" Exhibition in Moscow and in March 1998, for the first time, FAPSI took part in a foreign military exhibition in Abu-Dhabi offering secure communications equipment and demonstrated its equipment in Brazil, Switzerland and Singapore[82].

Spend, Spend, Spend

As the economic situation of the Russian Federation progressively worsened, all power structures except the Ministry of Interior and FAPSI were forced to make drastic cuts. Even with some of the world's best software and cryptographic experts Russia was well behind the West and the Far East in production of computers[83]. FAPSI was therefore allowed to shop abroad. This was potentially a security personnel and accountants' nightmare. American companies were rejected, because FAPSI's security body was afraid that the NSA and the CIA would bug the equipment supplied. Germany was a far more familiar ground but even then FAPSI's security personnel claimed that the Germans had acquired too much knowledge about some Russian secrets and someone had succeeded in planting a temporarily immobilising mechanism in a computer in an earlier delivery[84]. Several officials in the agency could not resist treating the FAPSI budget as their personal slush fund on trips they took to several countries. The head of the Financial-Economic Directorate Vladimir Malinin had resigned, Deputy General Director Aleksandr Orlov went on holiday and did not return, the head of the Administration Directorate had also been fired, and the chiefs of the armament department and military services department left the agency. Their extravagant lifestyle and internal frictions resulted in an investigation conducted by the FSK/FSB, responsible for counterintelligence work within the agency[85].

The man who attracted the investigators' attention was Major-General Valeriy Ivanovich Monastyrskiy, who was responsible for FAPSI's financial department between 1994-1996. He began his career in the administration apparatus of the KGB from which he resigned in 1992 with the rank of Lieutenant-Colonel. For several years Monastyrskiy headed the Roskomtekh, Impex-Metal and Simaco companies, set up with FAPSI's direct participation. Monastyrskiy also sold unwanted KGB property. In November 1993 he was recruited by FAPSI and his wife took over running Roskomtekh. In March 1994 he was appointed head of the FAPSI financial-economic directorate and in October 1994 was promoted to Major-General. Monastyrskiy was arrested by the FSB on 12 April 1996 and accused of embezzlement of at least 20 million DM and 3.3 billion roubles and abuse of power. Monastyrskiy refused to answer any questions and demanded that his case be transferred to the General Prosecutor's office[86]. On 30 October 1996 the General Procuracy extended the term for Monastyrskiy's detention beyond six months but accepted Monastyrskiy's argument that the case should be handled by the

Investigation Directorate of the General Procuracy. Monastyrskiy still refused to answer the investigators. His defence team argued that the Investigating Directorate was largely staffed by FSB officers, which was true but when they demanded that his case should be handled by the General Procuracy they must have known that, and that their client could not be accused of abuse of power because he was not authorised to make high-level decisions.

In March 1997 Monastyrskiy wrote a letter to one of the Moscow papers claiming that he was a victim of a conspiracy against FAPSI[87] concocted by the head of the FSB General Barsukov, who wanted merge FAPSI with his organisation and General Korzhakov, the head of the Presidential Protection Service (SBP) who wanted to share FAPSI's budget. He accepted that the credit line made available to FAPSI in connection with purchases at Siemens had been misused but insisted that he was only indirectly involved in it. He blamed the FSB for being more preoccupied with identifying German agents among the Siemens staff than helping to conclude a contract beneficial for Russia. Monastyrskiy wrote that in 1994 the state allocated FAPSI about $50m from the debts owed to Russia by India, Algeria and Vietnam but that the Presidential Security Service "hijacked" most of the money, transferring it to their own projects[88]. What the letter did not say was that the same year Siemens and FAPSI signed a secret agreement according to which 5% of the value of all contracts between the two parties was to be transferred to the account of MKL Consulting Services, a company registered in Liechtenstein. Monastyrskiy was one of the three founders of the company[89].

General Starovoytov claimed in a counter-campaign that splitting FAPSI would diminish its effectiveness and there was no need to attach it to any other organisation because similar organisations in the USA and the UK operate successfully as independent entities[90].

FAPSI's authorised bank, Rato-Bank, handled large sums of money deposited by General Starovoytov, his wife and his son Dmitriy[91]. Dmitriy Starovoytov made several inordinately profitable financial deals with Rato-Bank. He deposited $50 on 27 November 1994 and was paid from November 1995 $25,000 dividends. General Starovoytov was accused of illegally moving his sister to one of FAPSI's apartments and giving her false military rank to cover the operation[92]. Further leaks described General Starovoytov's financial secrets, including a $161,983.24 account in RATO Bank and his wife's account with deposits of $100,000[93].

The address of Monastyrskiy's apartment on Veresayeva Street, where he was arrested, was leaked to the press[94]. The media were informed that he had received a house from the KGB (sic) in Orekhovo-Borisovo and that FAPSI bought him another two apartments. Monastyrskiy had four foreign made cars and his safe deposit in a Moscow commercial bank contained large sums of foreign currencies, documents and keys to a deposit in a foreign bank[95]. In 1995 he conducted business deals with a foreign, unspecified, intelligence officer and was interrogated for six hours by the French Special Services when he tried to transport through France $300,000 in cash from Luxembourg to Switzerland. He carried on him three Russian passports, one of them diplomatic, and his FAPSI ID card. He was accompanied by Dmitriy Starovoytov who headed several commercial enterprises and had close commercial links with FAPSI.[96] Monastyrskiy informed General Starovoytov about the French adventure but did not report it to the FSB military counter-intelligence responsible for FAPSI's security. Disregarding the travel ban imposed on him by the FSB Monastyrskiy tried to travel to Germany but was stopped at Sheremetevo airport[97]. FAPSI made two money transfers to the

Roskomtekh company run by Monastyrskiy's wife, $130,000 in total, for purchases of equipment, and 5m roubles to another company headed by one of his relatives. No equipment has been purchased and the money has not been returned.

By mid-1997 Starovoytov and his colleagues had decided that the best method of defence was attack. The FAPSI collegium wrote to Boris Yel'tsin complaining about the unprecedented attempt to discredit FAPSI leadership. Monastyrskiy's lawyers conducted an aggressive campaign against their client's detractors, aiming at specific personalities in the FSB. In revenge the FSB gave several journalists a list of FAPSI's staggering corrupt practices and financial gerrymandering, with names, addresses and sums involved[98]. Monastyrskiy was released on 29 September 1997 because of insufficient evidence, but the investigation continued and in June 1998 rumours of Starovoytov's dismissal began to circulate in Moscow. He kept his position until the end of 1998 thanks to Yel'tsin's support but was retired at the beginning of December 1998[99].

Crime & Creative Accounting

The Monastyrskiy affair was widely publicised because of political infighting around Yel'tsin. Internal problems reflecting the general chaos and dishonesty in Russia leak rarely from the security-conscious agency. Crime fighting in FAPSI, like in all military formations, is under the jurisdiction of the Military Procuracy and like in most other formations, crime in FAPSI has been increasing steadily[100]. In February 1996 three FAPSI officers were caught in a protection racket scam and in September 1998 two FAPSI officers were arrested for taking bribes[101]. A FAPSI Lieutenant Colonel was caught when he offered his services to the German BND and was sentenced to 12 years[102].

These were minor cases. In May 2000 one of the Moscow tabloids, Novaya Gazeta, published a story accusing the director general of FAPSI V G Matyukhin of fraud and abuse of power. The article accused the leaders of FAPSI of receiving large sums of money in 1996: Lieutenant-General V I Markomenko - R16m, V G Matyukhin - R14m, G V Yemelyanov - R8m, I V Romanov - R8m, Yu P Shankin - R6m. Other top officials received between 6-8 m roubles.

Some non-deserving high-ranking officers, claims the paper, received new apartments. General Matyukhin lived with his wife and son on Victory Square but was also given a three room flat on Garibaldi Street where he only registered his wife. This allowed him to keep both flats. He moved out of the old apartment in February 2000, only to get another flat on Osenniy Bul'var in what the inhabitants of Moscow describe as the presidential house. One of the FAPSI companies, GUP NTTs Atlas, serves as the in-house building constructor and supplier of sophisticated equipment to secret commercial companies. The company uses conscript soldiers, a time tested method in both Russian and Soviet Armies. On 26 January 2000, during building works at the villa of the FAPSI director General Matyukhin, Villa No 24 in the village of Novogorsk, one of the conscripts, lance corporal Saimakov (unit 61608) died after inhaling gas[103]. The accident has been hushed up but not entirely, and the details provided by the paper suggest that General Matuykhin has very powerful and well informed enemies.

FAPSI & The Military

Deputy General Director of FAPSI Andrey Nikolayevich Ponomarev announced in 1998 that in peacetime FAPSI provides communications for the Defence Minister, his first deputies and the command of Armed Forces' large strategic formations during staff and command-staff exercises and military games, and exercises involving troops on a strategic, operational-strategic and operational scale[104]. He did not say when and where FAPSI's military counterparts have the opportunity to exercise their skills for such occasion. FAPSI also provides the Russian Strategic Nuclear Forces with communications channels and a cryptographic element[105]. This could suggest that some of the Ministry of Defence Signals Troops and signals facilities were transferred to FAPSI's command or that the MOD system was deliberately allowed to decay when the agency either took over some of the Army units or created parallel modern communications infrastructure. An attempt was made in 1996 to unify certain aspects of electronic communications among the power structures[106]. FAPSI was expected to reduce its personnel by 30% by the end of 1998 thanks to closer co-operation with the Armed Forces[107]. This may mean that the Armed Forces were to get some of their responsibilities back. It is not clear whether the brigade-centred system on which the new model was to be based meant a FAPSI/Army brigade was to be deployed in every large formation or that there would be a FAPSI cell at the brigade level. The latter model cannot be achieved at this stage, because the Russian army has retained the divisional system.

The agency has to share with the Armed Forces some of Russia's dwindling space assets. In 1980 the USSR made 120 launches of rocket launched vehicles. Russia made 35 launches in 1995[108]. Duma deputies were told by the anxious heads of the Russian space programme in January 1995 that 104 out of 177 Russian satellites circling the Earth were nearing the end of their operational life and their functions could be guaranteed.[109]

FAPSI in Chechnya

During the first Chechen conflict FAPSI set up a communications post in Mozdok and later at Severnyy airport[110]. FAPSI took part in the Chechen conflict, bridging the communications gap between units from various services, establishing links between civilian officials and Moscow, and together with the Army signals units listening to the Chechens' comms lines. The Chechens were not able to intercept FAPSI messages but the MVD communications system was vulnerable. During the first Chechen conflict FAPSI like all other power structures involved had their own commands and each looked after themselves[111]. In the first war FAPSI lost one man and four wounded. When it abandoned Groznyy it left its satellite communications centre in workable condition. The centre was used by the Chechens but as every message had to be relayed through Moscow the Russians were able to listen to all of them[112]. In December 1997 when the attack of a Chechen group destroyed the communications system in the town of Buynaksk (Dagestan) before attacking a Russian tank battalion, FAPSI was able to rig up a field communications centre within hours after the attack[113].

After the first conflict FAPSI provided Aslan Maskhadov and other Chechen leaders recognised by Moscow with secure communications and trained Chechen communications specialists[114]. FAPSI played a more discreet role in the second

Chechen operation partly because the Army signals troops were better prepared for the conflict. As in the first war, communications links between the MOD and the MVD troops either did not exists at all or were in many cases inadequate[115]. FAPSI had also acquired the new "Terek" mobile communications centres. Installed in a BTR, the Terek assures secure telephone and radio communications. Its functions were in the past performed by several dozen vehicles[116].

Snooping From Abroad

FAPSI shares with military intelligence, the GRU, the Lourdes (Cuba) station, Russia's largest listening post based abroad. According to US estimates Lourdes provides 76% of the global strategic information collected by Russia. The Lourdes station is capable of monitoring military and commercial communications, including financial institutions, high technology companies and space communications. The base conducts interception in 65 countries and the facilities have been upgraded throughout the 1990s. The station gathers information and analyses it.[117]. After the collapse of the Soviet Union, Moscow was not willing to subsidise Cuba and Havana began to talk about letting the Lourdes station on a commercial basis. The agreement on the pullout of Russian troops from Cuba and on payment for the facilities was concluded at the end of July 1993[118]. Russia was to pay $200m for renting the premises for a year, to be paid in fuel, timber and spare parts[119]; the post in Lourdes was reduced from 2,100 in 1992 to 1,000 people in 1993. FAPSI retains facilities in the Cam Rahn Bay base in Vietnam and probably on Socotra Island in the Indian Ocean.

Education & Recruitment

The first establishment of higher education devoted to communications and cryptological studies was the KGB Military Technical College in Bagratinovsk, in the Kaliningrad region. The College had a three-year curriculum and took its first students on 1 September 1966. That year all students from the first two years of the Moscow Border Guard College were transferred to the new college in Bagratinovsk. The KGB realised quickly that the college did not offer a sufficiently high level of training. In 1972 it was fundamentally reformed and moved to the town of Orel. The new college, called the Higher Military Command Signals School (VIPS), had the status of a military unit and a four-year curriculum. The School had two programmes; one offering the military higher education diploma and the other post-secondary military technical training. By 1975 the School had trained 2,303 specialist officers, 1,454 of whom were recruited by the KGB government communications troops. The first officers with university-level degrees graduated from the school in 1976. The school's unit-status was removed and in the spring of 1992 the School was renamed the Military Institute of Government Communications of the Federal Agency of Government Communications and Information. In 1993 its curriculum was extended by another year. Between 1976 and 1993 the school trained 4,000 experts of whom more than 2,400 joined the government communications troops. The institute selects candidate students for a five-year programme and is looking for healthy, physically fit and psychologically stable candidates, suitable for a military career, with adequate general knowledge.[120]

The candidates, male and female, must be between 16 and 22. The age limit is extended to 24 for those who either serve or had served in the armed forces. They are expected to have completed their secondary education. The candidates must submit their CV and several other certificates and photos, as required by most of the establishments of higher education around the world. They have to answer a questionnaire of 82 questions which include:

- Can an indecent or even obscene joke make you laugh?
- Are there among your acquaintances people you do not approve of?
- Have you ever had such bad thoughts that you would not want to those around you to know about them?
- Have you, or your parents, ever lived on territory exposed to an excessive dose of radiation or in other ecologically harmful areas? If the answer is "yes", explain for how long.
- Would you cross a street in a forbidden place even if you knew that you would not incur a penalty and there were no moving vehicles?
- How often is alcohol consumed in your family?

All candidates must pass the medical test. They also have to pass a physical test which requires them to run 100m in at least 14.8 seconds (17.4 seconds for girls), 7 chin-ups, swim 50m and run 3,000m cross country in 13min 30sec (1,000m in 4min 50sec for girls). The applicants take written exams in physics, maths and Russian language and literature. Veterans of Chechnya are among those who are accepted without exams if their qualifications are sufficient. There are annual preparatory courses organised in Orel and Khabarovsk. The accepted candidates study higher maths, all aspects of military communications, physics, foreign languages, humanities, socio-economic and special military subjects. The students starting the fifth year become junior lieutenants. The graduates are automatically promoted to lieutenants. The institute also offers postgraduate courses and has a separate faculty where officers can improve their qualifications and skills. More than 8,000 students have graduated from the institute since its creation. This figure probably includes the graduates from the NCOs' courses. Fifty per cent of the FAPSI military leadership graduated from the institute but its graduates serve also in the Border Guard Troops and the Ministry of Internal Affairs. The School, in accordance with its licences issued in March 1994 and November 1996 trains specialists in:

Communications networks and systems,
multichannel telecommunication systems,
radio and TV broadcasting,
automatic systems of information processing and control,
protection of telecommunication systems.

The school in Orel collaborates closely with the Institute of Cryptography, Communications and Information Technology of the FSB Academy. It seems that the VIPS runs only advanced cryptographic courses for those who have already graduated from the FSB Institute[121]. Because the VIPS graduates leave the school with highly marketable skills, in 1997 there were 17 candidates for every place offered[122]. The quality of many of them must have been less than satisfactory because in 1998, for the first time in its history, the VIPS accepted women candidates. They are trained to be programmers and linguists[123]. The graduates of the Orel school join FAPSI, the Federal Border Guards, the FSB, the MVD, the Federal Protection Service (FSO). The best graduates are allowed to choose the service in which they want to serve[124]. In addition to the graduates of the Orel Military Communications School, FAPSI also employs graduates from the Institute of Cryptography and Informatics of the FSB Academy, the Cryptographic

Academy[125] (known in the past as the Scientific Research Institute Nr1 of the Main Directorate of the Special Service of the CC of the CPSU), Moscow State University, Moscow Physicotechnical Institute, Moscow Institute of Engieering and Physics, the Military University and Communications Schools of the Russian Ministry of Defence[126].

Personnel

FAPSI personnel are divided into three principal groups: the military, which include the commanding staff (officers/managers) and scientists; civilian employees; and the workers. The scientific core of the agency consists of 400 experts with postgraduate diplomas and 40 top experts with PhDs. This team is supported by the teaching staff of the Cryptographic Academy, including 20 full members and 30 correspondent members of the Russian Academy of Sciences[127]. The speculative figures as to the total number of people on FAPSI's payroll oscillate between 53,000 and 120,000.

The agency appears to have problems with recruitment and retention of supporting civilian staff. In 1998 the communications troops were 85% manned[128]. About 30% of FAPSI staff are under 33, but the exclusion of conscripts and guards would "age" the average employee[129]. Part of the problem with recruitment at the lower level lies in the fact that FAPSI soldiers and NCOs are expected to have secondary education. In the 1990s the selection of suitable draftees was difficult in the shrinking pool of conscripts, and only one third of FAPSI's NCOs and soldiers' posts were occupied by professional/contract soldiers[130]. The 1997 recruitment campaign offered servicemen a salary of R500,000 (old roubles) a month, R400,000 of food rations or the equivalent in cash, uniforms, a one off payment depending on the length of the signed contract, an interest free loan for those marrying for the first time, a generous 13th month salary, annual leave of 30-45 days, free city transport, and other advantages[131]. Providing that the money was paid on time this was an attractive package at a time when the survivable minimum was R454,000 a month and the average salary in the armed forces was R1,255,000[132].

Boris Yel'tsin's plans to trim special services envisaged FAPSI to reduce its personnel by 30% by the end of 1998. This was to be achieved thanks to closer co-operation with the Armed Forces[133]. Almost two years later FAPSI, still in need of support personnel, is to benefit from the latest decision on the reservists. Among the 5,000 reservists who are to be called up every year until 2005 (of 15,000 people who will be placed on the reserve list) 25 will be posted to FAPSI[134]. Among many Russian power structures and militarised organisations FAPSI offers high quality training and excellent job experience for those who plan to work in civilian telecommunications organisations. It is and will remain an elite organisation for those who plan to spend the rest of their professional lives in uniform. When looking for suitable professional personnel FAPSI has very few competitors in the power structures. Its greatest competitor is the civilian labour market.

How Much Does It All Cost?

It can be argued that only weapons of mass destruction and FAPSI make Russia a power to reckon with. The size and form of the Russian nuclear arsenal has been debated at the highest level, in Russia and abroad, with leaks describing open

differences of opinion between the Minister of Defence and the Chief of the General Staff appearing recently in the Russian media. The debate is based more on Russia's financial capabilities than on the need to have an deterrent or a bargaining chip. The role of FAPSI is occasionally discussed by individual journalists but there has been no debate on what Russia needs from FAPSI and whether it can afford the costs. Budget expenditure on FAPSI in 1997 was 2,996 trillion roubles and 10-11 trillion roubles was planned for 1998-2001[135]. The size of the financial contribution of the regions to FAPSI's effort is not known. The law On the Federal Organs of Government Communications and Information makes it clear that FAPSI is funded from the republican budget[136]. FAPSI gets some of its non-technical supplies from the Russian Ministry of Defence and its buildings seem to be funded from federal sources[137]. In the mid 1990s FAPSI received funds from the eternally gullible IMF. Mikhail Kasyanov, director of Foreign Credits and Foreign Debts in the Ministry of Finances, said during Duma hearings that $200m frrom the International Monetary Fund would go to FAPSI to improve the electronic security of the Russian banking system[138].

Gradual cuts of FAPSI personnel would thus allow it to buy a mainframe computer and encoding equipment but sooner or later, in spite of all security restrictions someone will ask if this equipment is really necessary, can other cuts be made in the organisation and how many special communications networks Russia needs. Already in 1997 Prime Minister Viktor Chernomyrdin described FAPSI's suggested reforms as "quite expensive"[139].

Swallowing A Whale

Rumours about FAPSI's impending resubordination to the FSB have been circulating for several years. This is mainly because the agency has become a victim of its own success. It has direct access to the president, it has a big budget, it monitors many state and commercial structures, it conducts internal analytical work which should not be conducted at all or should be done on a much smaller scale either by the MVD or by the FSB. It is responsible for building its own facilities. The Commandant of the Kremlin, later the head of the FSB (June 1995-July 1996) Army General Barsukov attempted to break up FAPSI and to reassign its fragments to other security structures[140]. In the mid 90s the section responsible for presidential communications was taken briefly from FAPSI and attached to the Main Protection Directorate (GUO), later renamed the Federal Protection Service (FSO)[141]. This was important for the FSB as FAPSI handled Yel'tsin's communications and provided him with information directly, bypassing all other security structures[142]. FAPSI has the right facilities to listen to just about everyone in Russia and its denials that it uses them do not sound plausible.

General Aleksandr Starovoytov denied that FAPSI conducts electronic intelligence against Russian citizens[143]. Russian laws allow listening in to Russian Federation citizens' conversations but only when authorised by a judge or prosecutor. The MVD, the FSO and the tax police are allowed to bug Russian nationals in Russia. The FSB and the SVR (the latter only jointly with the FSB) are authorised to bug Russian and foreign nationals in Russia if they are a target of investigation[144]. The global radio-electronic intelligence conducted by FAPSI covers all the above and its legal rights are not entirely clear.

- Technically, mobile communications, bounced of satellites, can be intercepted in (extraterritorial) space. The only other Russian organisation able to do this is the MOD.
- Electronic communication linked with international terrorism, drug smuggling/laundering always has foreign links.
- FAPSI controls the communications system of the Russian banks and large oil and gas companies, some of them through the Kaskad system. Does this mean that electronic surveillance on the FAPSI secure system is conducted by other security structures?
- If FAPSI is legally in control of all cryptographic systems who checks on their users in Russia?

If the FSB indeed tried to take over FAPSI, it has so far failed but time and Vladimir Putin are on the side of the FSB.

The Future

Despite the creative accounting of some of its leaders, almost absolute power over Russia's communication systems, its uncertain role in monitoring internal communications lines, its image as a presidential toy and its large budgetary requirements, FAPSI has a bright future either in its present form or as part of a larger security system. Vladimir Putin may shift FAPSI's analytical bodies to the FSB without merging the two organisations. Much closer co-operation between them is practically certain, as they have already been co-operating on the formulation of the concept of information security of the Russian Federation since 1997[145]. Putin may also decide that merging the two organisations could have its advantages. Both Putin and his closest collaborator Sergey Ivanov have said that there are no plans to create a new KGB or a super powerful security body. However, merging FAPSI and the FSB would not be illegal. How powerful the new body could be, would entirely depend on how the president was willing to use it. He is already legally in charge of all security organisations. The merger would not change much except making them more efficient and cost effective. The agency's insistence on controlling and monitoring the commercial communications network is justifiable but its commercial activities are not. FAPSI must already be a target of closer scrutiny by the FSB, in accordance with Vladimir Putin's statute on the FSB structures in the armed forces and other bodies[146]. He may appreciate FAPSI's importance but given his background, the FSB can for the first time since its post August 1991 inception expect a fair hearing and the FAPSI leadership should not expect Yel'tsin-style limitless tolerance. FAPSI may even be renamed, but its principal tasks are too important for the president to weaken its main elements.

It will keep developing, maintaining and protecting the government communications system, gathering and make attempts to decrypt communications from selected countries, it will conduct research and produce cryptographic hardware and software to maintain Russia's cryptograhic advantage. The Russians claim that with the present technology, deciphering their present codes would take 8-10 years[147] but acknowledge that several countries are ahead, especially in space and digital communications systems. Creation of another body responsible for information warfare would be too expensive in the present not too favourable economic situation. This might also be a decisive factor for FAPSI to be allowed to keep its analytical bodies. Because of the role it plays in the internal affairs of the country, the agency will not be able to escape the unwanted spotlights, some of which will come from the presidential office.

ENDNOTES

[1]   Intelligence in Peace and War, Michael Herman, RIIA and Cambridge University Press, 1996, pxviii and xix.

[2]   Rossiyskaya Gazeta, 27 December 1995, p5-6.

[3]   Viktor Sheymov, a Soviet defector from one of the KGB directorates which subsequently became part of FAPSI, wrote a book "Tower of Secrets" (Naval Institute Press 1993) almost completely devoid of the technical aspects of his work. A 33 year old KGB Major, Viktor Sheymov of the 8th Chief Directorate was one of the most valuable Soviet defectors ever. In May 1980 he and his family were smuggled from one of the Warsaw Pact countries. The investigation of Sheymov's defection was side-tracked by the arrest of three militiamen accused of murders and robberies. One of their victims was a KGB officer. When the accused admitted the killing of an unknown family, the KGB investigators began to explore the possibility that the murdered family was that of Sheymov. (Lichnoye Delo, Vladimir Kryuchkov, Olimp 1996, p349, 350.) Kryuchkov writes that the KGB received information about Sheymov's defection in 1984 and 1985 but the investigating officers and their bosses were reluctant to accept that a KGB officer with such unique knowledge could defect to the opposition.

[4]   The 8th Chief Directorate included the Politburo Communications Group (Tower of Secrets, Viktor Sheymov, Naval Institute Press 1993 p78).

[5]   Izbavleniye ot KGB, Novosti 1992, p83.

[6]   Spetssluzhby I Ikh Predstaviteli V Rossiyskom Obshechestve, Aleksey Mukhin, SPIK Tsentr, Moscow 1999, p35.

[7]   Krasnaya Zvezda, 11 March 2000, p6.

[8]   Interfax in English, 15 December 1992.

[9]   No 4524-1, 19 February 1993.

[10]   Article 5 separates the organs of the government communications and information in the subjects of the Russian Federation from FAPSI but makes the latter subordinate only to the president.

[11]   In spite of numerous assurances from the FAPSI leadership that the organisation does not conduct eavesdropping or any form of electronic surveillance in Russia, it is difficult to imagine that Boris Yel'tsin could have resisted the opportunity of having a closer look at some of his political opponents without using FAPSI's formidable capacities. FAPSI boss Starovoytov said in an interview in 1995 that his organisation does not conduct telephone surveillance because it is not legally authorised to do so and it has no technical means to do it. (Izvestiya, 26 April 1995.)

[12]   FAPSI's internal security is handled by the FSB.

[13]   The Russians estimate that 10 countries belong to the top league of cryptography and Russia is at the top of the league.

[14]   Some of the best telecommunications companies of the Soviet Union were not based in Russia.

[15]   Komsomolskaya Pravda, 18 March 1997, p4.

[16]   Izbavleniye ot KGB, Novosti 1992, p84.

[17]   Argumenty I Fakty, 24 June 1997, p7; Novaya Gazeta No 37, 1997.

[18]   Komsomolskaya Pravda, 18 March 1997, p4.

[19]   Trud, 20 September 1997, FBIS-SOV-97-266.

[20]   Nezavisimoye Voyennoye Obozreniye, No 6, 1998, p7.

[21]   Krasnaya Zvezda, 14 February 1998, p3.

[22]   Ibid.

[23]   The most typical example of such co-operation is the case of the John Walker naval spy ring and the illegal detention by the North Korean Navy of the US ship Pueblo which gave the KGB the KW 7 and KWR 37 coding machines (B Anin, A Petrovich, "Radioshpionazh", Mezhdunarodnyye Otnosheniya, 1996, p311).

[24]   Trud, 14 August 1991, p4, JPRS-UPA-91-041.

[25]   The Japanese NEC sold to FAPSI (officially the purchaser was the Russian Academy of Sciences) a licence for production of digital communications equipment. (Rossiyskaya Gazeta, 23 August 1997, p6.)

[26]   Krasnaya Zvezda, 13 February 1993, p3.

[27]   Dagens Nyheter, 25 April 1993, pA7, FBIS-SOV-93-081.

[28]   Nezavisimaya Gazeta, 1 July 1998, p8.

[29]   TASS, 13 May 1999.

[30]   Interview with Aleksandr Starovoytov, Obshchaya Gazeta, 22-28 May 1997, No 20, p1,3.

[31]   Nezavisimaya Gazeta, 14 May 1998, p3.

[32]   Krasnaya Zvezda, 8 September 1998, p3.

[33]   Segodnya, Nr 43, August 1993, p7.

[34]   Nezavisimoye Voyennoye Obozreniye, 25-31 January 1997, p1.

[35]   Nezavisimoye Voyennoye Obozreniye, 25-31 January 1997, p1.

[36]   The only time when Yel'tsin may have had a problem with subordination in FAPSI was during the failed anti-Yel'tsin coup at the beginning of October 1993. The head of FAPSI's Personnel Directorate, Vladimir Viktorovich Makarov, was unexpectedly transferred to other duties on 6 October 1993 and his position abolished, which meant that another special service took over the responsibilities of the defunct department. (Spetssluzhby I Ikh Predstaviteli V Rossiyskom Obshechestve, Aleksey Mukhin, SPIK Tsentr, Moscow, 1999, p36.)

[37]   Gennadiy Seleznev, the speaker of the State Duma (Komsomolskaya Pravda, 18 March 1997, p4). The allegations made in 1994 that the telephone lines in the Kremlin had been bugged could suggest that the Presidential Protection Service was one of the culprits. (Kommersant Daily, 12 March 1994 and 23 March 1994.)

[38]   The Internet offers some relevant information, almost entirely in English and German, but many Russian Internet surfers believe that FAPSI "tags" certain websites and then tracks down their Russian visitors.

[39]   Spetssluzhby I Ikh Predstaviteli V Rossiyskom Obshechestve, Aleksey Mukhin, SPIK Tsentr, Moscow, 1999, p37. In December 1998 FAPSI announced the creation of the centres of legal information. They exist in Moscow, St Petersburg, Smolensk, Tula, Krasnodar and Bryansk. The participants in the undertaking are FAPSI, the Russian State Library, Ministry of Culture and the Russian Fund of Legal Cultures. This is probably an extension of the "Sistema" network.

[40]   Segodnya, 8 September 1995, p3; Krasnaya Zvezda, 15 August 1997, p2; Rossiskaya Gazeta, 6 April 1995; Segodnya, 3 September 1996, p11.

[41]   Nezavisimaya Gazeta, 14 August 1997, p1-2.

[42]   Segodnya, 5 April 1997, p1, 7.

[43]   Izvestiya, 10 February 1995, p1-2. The Russian commercial data encryption standard GOST28147-89 allows FAPSI to reduce the security of a system submitted for licensing. (Izvestiya, 20 April 1995, p4) All databases in Russia must be registered and one copy has to be made available to FAPSI.

[44]   Rossiskaya Gazeta, 18 April 1996, p4.

[45]   Nezavisimaya Gazeta, 1 July 1998.

[46]   Krasnaya Zvezda, 1995, No 248-249, p5.

[47]   RTR, 25 October 1997; FBIS-SOV-97-303. It is not clear whether "Kontur" is a part of the Presidential Information-Analysis Centre or one of its components.

[48]   Spetssluzhby I Ikh Predstaviteli V Rossiyskom Obshechestve, Aleksey Mukhin, SPIK Tsentr, Moscow, 1999, p37.

[49]   Article 1 and 2 of the Law on the Federal Organs of Government Communications and Information.

[50]   Spetssluzhby I Ikh Predstaviteli V Rossiyskom Obshechestve, Aleksey Mukhin, SPIK Tsentr, Moscow, 1999, p36.

[51]   Argumenty I Fakty, No 48, 1997, p3.

[52]   Ibid.

[53]   Nezavisimaya Gazeta, 1 July 1998, p8.

[54]   Nezavisimoye Voyennoye Obozreniye, No 6, 1998, p7.

[55]   RTR, 25 October 1997; RTR, 15 February 1998; FBIS-SOV-98-048. The number of subscribers to the government communications system is about 10,000.

[56]   This may or may not be a secure telex facility.

[57]   Rossiyskaya Gazeta, 19 December 1997, p10.

[58]   Spetssluzhby I Ikh Predstaviteli V Rossiyskom Obshechestve, Aleksey Mukhin, SPIK Tsentr, Moscow, 1999, p37; Segodnya, 8 September 1995, p3.

[59]   Kommersant, No 16-17, 14 May 1996; FBIS-SOV-96-133-S.

[60]   In the Soviet era when the intelligence cipher clerks from the First Main Directorate of the KGB were posted abroad their files were transferred to that directorate for the period of their assignment.

[61]   Addendum to Presidential Decree No 162, Rossiyskaya Gazeta, 11 July 1995, p4. Enterprises in Moscow, Kaluga and Ulyanovsk produce telecommunications equipment and computers for the state (Krasnaya Zvezda, 29 July 1998, p3.) The "Kalugapribor" enterprise has in its range of products the "Khaykon-300" digital automatic telephone exchange. The "Khaykon–300" meets all world standards but is 20% cheaper than their foreign counterparts. Lt-Gen Yuriy Shankin, deputy director general of FAPSI, said that the company was able to retain 250 specialists and added that the investment in the plant was to reach 40 million German marks by the end of 1998.

[62]   Segodnya, 18 April 1997, p5.

[63]   Nezavisimoye Voyennoye Obozreniye, No 30, 16-21 August 1997, p1, 7, which notes that the Russians appear to have accepted the definition of the US Joint Chiefs of Staff, that "Information warfare means actions undertaken to achieve information superiority in support of national military strategy by means of influencing the opponent's information and information systems, while simultaneously ensuring the security and protection of one's own information and information systems".

[64]   Ibid.

[65]   Nezavisimaya Gazeta, 14 August 1997, p1-2; Nezavisimoye Voyennoye Obozreniye, No 30, 16-21 August 1997, p1, 7.

[66]   Finantsovyye Izvestiya, 24 June 1997, pVI.

[67]   Segodnya, 17 August 1993.

[68]   Segodnya, Nr 43, August 1993, p7.

[69]   Moskovskiy Komsomolets, 8 July 1995, p5; FBIS-SOV-95-131.

[70]   Spetssluzhby I Ikh Predstaviteli V Rossiyskom Obshechestve, Aleksey Mukhin, SPIK Tsentr, Moscow, 1999, p37.

[71]   Rossiyskaya Gazeta, 8 June 1995, p8.

[72]   Segodnya, 25 December 1997, p7.

[73]   Which begs a question: how much did FAPSI know about money transfers from Russia to foreign banks?

[74]   The other method used by FAPSI is delay. Tveruniversalbank applied to FAPSI for the required licence and a year later had had no answer (Kommersant, 1 July 1996, No 224, p32-35).

[75]   Segodnya, 24 May 1997, p6.

[76]   Segodnya, 3 September 1996, p11.

[77]   Segodnya, 5 April 1997, p1, 7.

[78]   Nezavisimoye Voyennoye Obozreniye, No 30, 1997, p1, 7. It is possible that the author refers here to the System of Operational Intelligence Measures (SORM) controlled by the FSB.

[79]   Spetssluzhby I Ikh Predstaviteli V Rossiyskom Obshechestve, Aleksey Mukhin, SPIK Tsentr, Moscow, 1999, p37.

[80]   Obshchaya Gazeta, Nr 20, 1997, FBIS CD ROM.

[81]   Pravda, 16 September 1990, p2; Nezavisimaya Gazeta, 1 July 1998, p8.

[82]   Nezavisimaya Gazeta, 1 July 1998, p8.

[83]   Russian specialists claim that their first supercomputer "Vesna", built in 1964, was better than anything produced abroad (Krasnaya Zvezda, 11 March 2000, p6).

[84]   General Starovoytov, heading the agency, insisted that Siemens would not dare to bug the equipment it exports to Russian because his, Starovoytov's signature would ban Siemens from Russian territory. (Kommersant Vlast, 28 July 1998 and Obshchaya Gazeta, 22-28 May 1997, No 20, p1, 3.)

[85]   FAPSI's security personnel are responsible for protection of the agency's facilities.

[86]   Izvestiya, 23 May 1996, p2. The case was originally handled by the newly restored Investigative Directorate of the FSB. Because of Monastyrskiy's position and the secret nature of FAPSI's activities the Office of the Prosecutor General issued a special order allowing the FSB to handle the case. (Moskovskiye Novosti, Nr 32, 11-18 August 1996, p22.) The move was to assure stricter secrecy of the whole procedure but did not satisfy

those within the agency who suspected that the whole campaign aimed at merging the two organisations with the FSB becoming the senior partner.

[87]   Moskovskiye Novosti, No 11, 16-23 March 1997, p10.
[88]   Ibid.
[89]   Moskovskiy Komsomolets, 8 April 1997, p1, 4.
[90]   The British GCHQ or the US NSA have incomparably less influence and power than FAPSI.
[91]   Moskovskiy Komsomolets, 8 April 1997, p1, 4; FBIS-SOV-97-08.
[92]   Moskovskiy Komsomolets, 8 April 1997 p1, 4.
[93]   Moskovskiy Komsomolets, 22 August 1997, p1,4, FBIS-SOV-97-261.
[94]   Monastyrskiy was still one of the highest ranking officials in one of the most secret organisations in Russia and he was yet to appear in court. He was only under investigation.
[95]   Interview with FSB Colonel Astakhov responsible for the Monastyrskiy case, Nezavisimaya Gazeta, 28 March 1997, p1, 6.
[96]   Moskovskiy Komsomolets, 8 April 1997, p1, 4; FBIS-SOV-97-08.
[97]   Ibid.
[98]   A detailed list of alleged FAPSI's business deals was published in Moskovskiy Komsomolets, 22 August 1997, p1, 4 and Novyaya Gazeta, No 37, 1997, p2.
[99]   NTV, 7 December 1998.
[100]   Trud, 26 June 1996, p2; FBIS-UMA-96-150-S.
[101]   Kommersant-Daily, 25 September 1998, p3; Moskovskiy Komsomolets, 24 January 1997, p1; FBIS-SOV-97-031.
[102]   Moskovskiy Komsomolets, 4 July 1997, p1-2; FBIS-SOV-97-195.
[103]   Novaya Gazeta, 22 May 2000, electronic version.
[104]   Krasnaya Zvezda, 15 October 1998, p1, 3.
[105]   Nezavisimaya Gazeta, 1July 1998, p8.
[106]   Armeyskiy Sbornik, November 1996, No 11, p6-8.
[107]   Krasnaya Zvezda, 15 August 1997, p2.
[108]   Nezavisimoye Voyennoye Obozreniye, 10 October 1996, No 19, p1, 3.
[109]   ORT TV, 28 January 1995; FBIS-SOV-024.
[110]   RTR, 25 October 1997; FBIS-SOV-970-303.
[111]   Komsomolskaya Pravda, 14 March 1996, p1-2.
[112]   Sobesednik, May 1997, No 20, p3; FBIS-SOV-97-109.
[113]   NTV, 24 December 1997; FBIS-SOV-98-004.
[114]   Nezavisimaya Gazeta, 1 July 1998, p8.
[115]   The lack of compatible communication equipment of the MOD and the MVD troops is most likely a deliberate policy.
[116]   Krasnaya Zvezda, 14 February 1998, p3.
[117]   William Rosenau, Intelligence and National Security, Vol 9, No 4, 1994, p725.
[118]   Interfax, English, 30 March 1993.
[119]   Pravda–5, 29 January 1997, p3.
[120]   The information in this section came logged from the FAPSI website: www-vips.icn.gov.ru
[121]   Nezavisimaya Gazeta, 1 July 1998, p8.
[122]   Krasnaya Zvezda, 25 July 1997, p2.
[123]   Krasnaya Zvezda, 15 October 1998, p1, 3. Recruitment of women by the Russian power structures is based purely on the supply and demand principle although the situation varies depending on the service. The Ministry of Internal Affairs has two women generals.
[124]   Krasnaya Zvezda, 10 April 1993, p7.
[125]   The Cryptographic Academy serves also as an unofficial co-ordinator of FAPSI, the FSB, the Ministry of Defence and several establishments of higher education in problem-solving undertakings such as security of optical fibre communication systems, quantum cryptography, mathematical modelling of information systems and others (Krasnaya Zvezda, 11 March 2000, p6).
[126]   Krasnaya Zvezda, 24 December 1996, p2.
[127]   Krasnaya Zvezda, 11 March 2000, p6.
[128]   Krasnaya Zvezda, 15 October 1998, p1, 3.
[129]   Krasnaya Zvezda, 23 December 1997, p3.

[130] Krasnaya Zvezda, 14 February 1998, p3.

[131] Krasnaya Zvezda, 29 July 1997, p4; 11 November 1997, p4; Rabochaya Tribuna, 11 July 1997, p8. Considering the highly secretive nature of its activities FAPSI cannot afford to delay payments to its staff for very long, as was frequently the case in other power structures.

[132] Nezavisimoye Voyennoye Obozreniye, 15-21 January 1999. A major in FAPSI earned as much as a colonel general in the Ministry of Defence (Novaya Gazeta, No 37, 1997, p2-3; FBIS-SOV-97-261).

[133] Krasnaya Zvezda, 15 August 1997, p2. The number of abolished posts was usually given as 10,000 but it has never been announced if the cuts cover only operational personnel or those working in the central apparatus. Other sources mention gradual cuts of FAPSI troops from more than 25,000 to 10,000. The reductions were to be achieved by the year 2003.

[134] TASS, 18 April 2000. Boris Yel'tsin signed a similar decree in January 1997 (ITAR-TASS, 21 January 1997).

[135] Moskovskiy Komsomolets, 22 August 1997, p1, 4; FBIS-SOV-97-261.

[136] Article 17 points 1 and 2.

[137] Article 17 points 4 and 5.

[138] Segodnya, 1995, No 192, p2.

[139] Izvestiya, 17 July 1997, p2.

[140] The Russian Federal Special Construction Service was disbanded in mid 1998 after two years of existence and some of its formations were transferred to FAPSI (Kommersant-Daily, 13 May 1998, p2).

[141] Obshchaya Gazeta, 17-23 April 1997, p7; FBIS-SOV-084. According to unconfirmed reports after the dismissal of generals Korzhakov and Barsukov in the summer of 1996 the section responsible for presidential communications was returned to FAPSI.

[142] Obshchaya Gazeta, 17-23 April 1997, p7; FBIS-SOV-084. The FSB instigated the investigation against FAPSI's financial irregularities. FAPSI would have been responsible for supplying the FSB with information from electronic interception on drug trafficking and money laundering. As the battle between the two organisations became progressively bitter it is not evident that FAPSI supplied the FSB with all the information at its disposal.

[143] Argumenty I Fakty, Nr 47, 1997.

[144] Komsomolskaya Pravda, 18 March 1997, p4.

[145] The other organisations working on Russia's information and communication policies are the Ministry of Communications, the Russian Federation Committee of Information and (created in 1994) the Interdepartmental Commission for Information Security under the Russian Federation Security Council. The commission had originally an advisory role.

[146] See Gordon Bennett, The Federal Security Service of the Russian Federation, CSRC Paper C102, March 2000.

[147] NTV, 24 December 1997; FBIS-SOV-98-004.