

**Type Certified Radiotechnical Equipment for Air Ttraffic Control Centres, Airdromes and Air Routes**

24.06.10.

<i>Ser. NoNo</i>	<i>Designation (name) of equipment</i>	<i>Marking of equipment</i>	<i>Issued to</i>	<i>Num ber of Certif icate</i>	<i>Date of issue</i>	<i>Remarks (Note)</i>
1	Direction finder АРП-75 (4-channelled -E-523 and 8-channelled - E-518 variants)	ТЖ1.400.079	Ministry of radio industry of the USSR	001	06.06.78	Certificate cancelled 20.12.04
2	Radar complex "Skala"	ЯБ1.000.024	Ministry of radio industry of the USSR	004	08.01.79	Certificate cancelled 26.04.04
3	Stationary controller radar ДРЛЛ-7СМ	ЕЛ1.231.018	Ministry of radio industry of the USSR	005	17.04.79	Special limitations
	Stationary controller radar ДРЛЛ-7СМ, updated upon bulletin ДРЛЛ-7СМ.19БУ		Federal State Industry "Chelyabinsky Radio Plant "Polyet", Russia	Additi on № 1 to Certif icate №005	29.11.01	Certificate Owner changed
4	Radar complex "Irtysh"	ВШ1.000.001	Ministry of radio industry of the USSR	006	02.07.79	Certificate cancelled 05.04.05
5	Radio transmitter "Jasen-50"	ХЖ1.102.013	Ministry of communication means industry of the USSR	008	10.07.79	Certificate cancelled 05.04.05
6	Radar complex "Skala-M" (ТКЛК-10)	ЯБ1.000.040	Ministry of radio industry of USSR	009	05.02.81	Certificate cancelled 01.10.04
7	Ground equipment for the Instrument landing system СП-75	ТЖ1.400.081	Ministry of radio industry of the USSR	010	16.02.81	Certificate cancelled 25.04.05
8	Meters Wave range radio station "Baklan-RN"	ИЖ1.101.019	Ministry of communication means industry of the USSR	011	27.02.81	Certificate cancelled 05.04.05

9	Marker beacon type MPM-B, code E-615	ТЖ1.400093	Ministry of radio industry of the USSR	012	18.06.81	Special limitations Certificate was suspended 27.04.06 to 28.11.06
			Federal State Unitary Enterprise "Kuznetsk Radio Equipment Factory", Russia	Additi on № 1 to Certi ficate № 012	28.04.05	Certificate Owner changed
10	Precision approach radar РП-4Г	70.80802	Ministry of OM, Czech Republic	013	31.08.81	Certificate cancelled 25.04.05
11	Airfield radar complex "ONEGA-A"	EVI.231.059.	Ministry of radio industry of the USSR	014	31.03.82	Certificate cancelled 31.03.95
12	Homing radio station ПАР-10с "Krevetka"	УЭ1.240.006	Ministry of communica tion means industry of the USSR	015	29.04.82	Certificate cancelled 13.02.98
13	Two-channelled MW direction finder for civil mountain aerodromes and airports АРП-80 (code-"Топол")	ТЖ1.400.117	Ministry of radio industry of the USSR	016	27.10.83	Certificate cancel-led 20.12.04
14	Instrument landing system type СП-80 - СП-80М complete set variant	ТЖ1.400.105	Ministry of radio industry of the USSR	018	27.06.85	Special limitations
	Instrument landing system type СП-80 - СП-80Н complete set variant	ТЖ1.400.133		Additi on №1 to Certifi cate № 018	2.05.86	Certificate and Addition No 1 was suspende d 27.04.06 to 28.11.06
	Instrument landing system СП- 80М Instrument landing system СП-80Н	ТЖ1.400.105 ТЖ1.400.133	Federal State Unitary Enterprise "Kuznetsk Radio Equipment Factory", Russia	Additi on № 2 to Certi ficate №01 8	28.04.05	Certificate Owner changed
15	The Airport surface surveillance radar "Obzor-2"	ТЖ1.000.001	Ministry of radio industry of the USSR	019	29.05.89	Certificate cancelled 05.04.05

16	Airfield surveillance radar АОРЛ-85 (code "Ekran-85")	ЕЛ1.231.020	Ministry of radio industry of the USSR	020	30.11.89	
	Airfield surveillance radar АОРЛ-85МТА	ЕЛ1.231.020-08	Federal State Unitary Enterprise "Chelyabinsk Radio Plant "Polet", Russia	Addition №1 to Certificate № 020	14.11.02	Certificate Owner changed
	Airfield surveillance radar АОРЛ-85К	ЕЛ1.231.020 ЕЛ1.231.020-01 ЕЛ1.231.020-09		Addition №2 to Certificate № 020	09.07.03	
	Airfield surveillance radar АОРЛ-1А в вариантах исполнения : - АОРЛ-1АС, - АОРЛ-1АМ, - АОРЛ-1АП	ЕЛ1.231.020-16 ЕЛ1.231.020-17 ЕЛ1.231.020-18		Addition №3 to Certificate № 020	19.01.06	
	Terminal Area Observation Radar АОРЛ-1А (with the transistor-based primary channel Transmitter) manufactured in the variants of: - АОРЛ-1АС - АОРЛ-1АМ, - АОРЛ-1АП			Addition №4 to Certificate № 020	26.12.07	Special limitations
17	Precision approach radar РП-5Г	7 QY 190		State enterprise Tesla-Pardubice Czech Republic	021	26.01.90
18	MW-range ground radio station "Polyet-1"	ИЖ1.101.028-09	Ministry of communication of the USSR	022	23.08.90	Certificate cancelled 05.04.05
19	Radar complex TESLA RL-61 "Druzhba"	7 QY 210 05	State enterprise Tesla-Pardubice, Czech Republic	22	05.11.91	Certificate cancelled 03.05.05
20	Airport surface surveillance radar "AKSAY"	ПФРИ.461315.000	Open JSC "Gorizont", Russia	1	24.10.94	Certificate cancelled 08.07.03
21	Non-direction radio beacon АРМ-150, with antennas А3 P174-000-000 and P175-000-000	P159-000-000	Closed JSC "Technomarin", Russia	3	01.06.95	Certificate cancelled 02.06.05

22	Autonomous secondary surveillance radar "Raduga" (with the plot extractor)	РШПИ.462611.004	Closed JSC "VNIIRA-OVD", Russia	4	19.07.95	Special limitations
			JSC VNIIRA, Russia	Addition №1 to Certificate № 4	18.12.06	Serial production approved
23	Instrument landing system СП-90	ИЦРВ.461.512.018	Closed JSC "Scientific-research Institute of Measuring Equipment – Radiotechnical Systems", Russia	14	31.01.96	
	Landing system СП-90 featuring localizer antenna АИЦТ. 461611.004 and the antenna tower of the glide-path beacon АИЦТ. 464611.012			Addition №1 to Certificate № 14	29.12.05	
	Landing system СП-90 with Remote control Equipment АИЦТ.461512.011, User Program "Multiconsole" АИЦТ.51201-1.1 and operating system QNX, version 4.25			Addition №2 to Certificate № 14	27.04.06	
	Landing system СП-90 with Farfield Device АИЦТ.462992.004			Addition №3 to Certificate. № 14	27.04.06	
24	Instrument landing system СП-90М	ИЦРВ 461.512.008	Closed JSC "Scientific-research Institute of Measuring Equipment – Radiotechnical Systems", Russia	15	29.03.96	Special limitations
25	Secondary surveillance radar "Krona"	ИЦРВ 461.511.032	Closed JSC "Scientific-research Institute of Measuring Equipment – Radiotechnical Complexes", Russia	34	31.07.96	Special limitations

26	<p>Instrument Landing System ILS type Mark-10 Categories I, II and III consists of:</p> <ul style="list-style-type: none"> <li>• Localizer;</li> <li>• Glide Slope;</li> <li>• Marker Beacon RBE-319;</li> <li>• Universal Remote Equipment (RCSH)</li> </ul>	<p>47 105 819 47 105 822 47 105 827 47 105 825</p>	<p>Thomson - CSF / Airsys, France</p>	61	23.12.96	
27	<p>Very high frequency omnidirectional radio range PMA-90</p>	<p>ИЦРВ.461512.001</p>	<p>Closed JSC "Scientific-research Institute of measuring equipment-radiotechnical systems", Russia</p>	62	20.12.96	
28	<p>Distance measuring equipment РМД-90</p>	<p>ИЦРВ.461512.013</p>	<p>Closed JSC "Scientific-research Institute of measuring equipment-radiotechnical systems", Russia</p>	63	20.12.96	
29	<p>VHF Radio-communication equipment SERIES 400:</p> <ul style="list-style-type: none"> <li>• Single-channel transmitter SU451 ;</li> <li>• Multi-channel transmitter SU452;</li> <li>• Single-channel receiver EU 401;</li> <li>• Multi-channel receiver EU 462;</li> <li>• Single-channel transceiver XU451;</li> <li>• Multi-channel transceiver XU 452</li> </ul>	<p>623.2105 623.2305 583.1310 583.0866 623.1009 623.1309</p>	<p>ROHDE &amp; SCHWARZ GmbH &amp; Co.KG, Germany</p>	70	28.02.97	Special limitations
30	<p>Marker Beacon RBE 319</p>	<p>47 105 827</p>	<p>Thomson-CSF/Airsys, France</p>	71	18.04.97	
31	<p>Conventional VHF Omnidirectional Range - VOR 540C consists of:</p> <ul style="list-style-type: none"> <li>• VOR 540C;</li> <li>• Remote Control Panel SDS80;</li> <li>• Nav aids Remote Maintenance Monitoring N-RMM</li> </ul>	<p>47 105 833 47 105 835 46 097 554</p>	<p>Thomson-CSF/Airsys, France</p>	72	18.04.97	

32	Distance Measuring Equipment DME 740 consists of: <ul style="list-style-type: none"> <li>• DME 740;</li> <li>• Remote Control Panel SDS80;</li> <li>• Nav aids Remote Maintenance Monitoring N-RMM</li> </ul>	47 105 834 47 105 835  46 097 554	Thomson-CSF/Airsys, France	73	18.04.97	
33	Conventional VHF Omnidirectional Range - VOR 5850 consists of: <ul style="list-style-type: none"> <li>• VOR 5850;</li> <li>• Universal Remote Equipment (RCSU)</li> </ul>	47 105 828 47 105 825	Thomson-CSF/Airsys, France	74	18.04.97	
34	Distance Measuring Equipment DME 5960 consists of: <ul style="list-style-type: none"> <li>• DME 5960;</li> <li>• Universal Remote Equipment (RCSU)</li> </ul>	47 105 830 47 105 825	Thomson-CSF/Airsys, France	75	18.04.97	
35	Ground Beacon DME	FSD-40 DE 0360075-18	Alcatel Air Navigation Systems GmbH, Germany	83	30.09.97	
		FSD-40	Thales ATM GmbH, Germany	Addition № 1 to Certificate № 83	06.10.04	Certificate Owner changed
36	Ground Beacon DME FSD	FSD-45-DE 0360086	Alcatel Air Navigation Systems GmbH, Germany	84	30.09.97	
			Thales ATM GmbH, Germany	Addition № 1 to Certificate № 84	30.12.05	Certificate Owner changed
37	Two-range uniimpulse secondary radar for terminal (airhub) and regional ATC systems MBPJ-CBK	ТАЛМ.642611.000	Closed JSC "VNIIRA-UVD", Russia	85	22.12.97	
38	Landing System ILS 4000 Categories I, II, III consists of: <ul style="list-style-type: none"> <li>• Localizer (LOC 4000);</li> <li>• Glide Slope (GS 4000);</li> <li>• Marker Beacon (M 4000)</li> </ul>	83140 54851 83140 54551 83140 54651	Alcatel Air Navigation Systems GmbH, Germany	86	23.12.97	

39	Instrument Landing System ILS 410 Categories I, II, III consists of:	83140 55051 83140 55151 83140 55251	Alcatel Air Navigation Systems GmbH, Germany	87	23.12.97	
	<ul style="list-style-type: none"> <li>• Localizer (LOC 411);</li> <li>• Glide Slope (GS 412);</li> <li>• Marker Beacon (M 413)</li> </ul>		Thales ATM GmbH, Germany	Addition № 1 to Certificate № 87	06.10.04	Certificate Owner changed
	Instrument Landing System ILS 410 with Remote Control and Status Equipment RCSE 443 FFM with Control Unit PC-CTU, and Farfield Monitor and ADRACS	83140 55352 83140 55327 83140 55451 83140 55354		Addition № 2 to Certificate № 87	30.09.05	Special limitations
40	Stationary automated homing radio station ПАР-10с	УЭ1. 240. 006	Omsk Production Association "Irtysk, Russia	97	13.02.98	Certificate cancelled 05.04.10 Certificate valid for products made before 05.04.10
41	VHF Omni-directional Radio Range	VOR 431	Alcatel Air Navigation Systems GmbH, Germany	98	17.04.98	
42	Doppler VHF Omni-directional Radio Range	DVOR 432	Alcatel Air Navigation Systems GmbH, Germany	99	17.04.98	
	Thales ATM GmbH, Germany		Addition № 1 to Certificate № 99	30.12.05	Certificate Owner changed	
	Doppler VHF Omni-directional Radio Range with c Remote control and Status Equipment RCSE 443 with Control Unit PC-CTU Type 3 and ADRACS			Addition № 2 to Certificate № 99	19.07.06	
43	Marker Beacon PMM-95	АИЦТ 461512. 001	Closed JSC	100	24.04.98	
	Marker Beacon PMM-95 with Remote Control Equipment АИЦТ. 461512.011, User Program "Multiconsole" АИЦТ.51201-1.1 and Operating System QNX,		"Scientific-research Institute of measuring equipment-	Addition № 1 to Certificate.	27.04.06	

	version 4.25		radiotechnical systems", Russia	№ 100		
44	Multi-channel system for recording audio signals and radar information	Recorder "GRANIT"	Shareholders society with limited responsibility "NITA", Russia	103	29.07.98	Certificate cancelled 19.02.02
45	System of optical displaying air conditions on digital screens code	"NORD"	Shareholders society with limited responsibility "NITA", Russia	104	29.07.98	Certificate cancelled 19.02.02
46	Complex of means for air traffic control automating	"ALFA"	Shareholders society with limited responsibility "NITA", Russia	106	23.09.98	Certificate cancelled 19.02.02
47	Equipment for primary information processing for airfield and en-route radar complexes ATC systems "PRIOR"	ПРКТ.467000.001	Close JSC "PRIOR", Russia	119	21.12.98	
48	Primary radar with antenna G-33I.	ATCR-33S	ALENIA SYSTEMS S.p.A, Italy	120	28.12.98	
49	Synchronized recording complex of air traffic control process ATM "МАГ"	42887224.6811290.045	Close JSC "SPAS-UVD", Russia	121	15.01.99	Certificate suspended 29.06.05
50	Automatic direction finder "Platan"	ВАИШ.462112.016	Open JSC Scientific-research Institute "Sapfir", Russia	122	21.01.99	Certificate cancelled 05.02.08
		ВАИШ.462112.016-11	Open JSC "Azimut", Russia	Addition № 1 to Certificate № 122	30.06.06	Note ?
51	Track Radiolocation Station 1Л118 (LIRA-1)	ЯБ1.000.016-	Lianozovskiy	123	23.03.99	

		25-06	Electromechanical Plant, Russia			
52	Landing system СП-90Н which consists of: <ul style="list-style-type: none"> <li>• Localizer with antenna system ;</li> <li>• Glide Slope with antenna system ;</li> <li>• Remote Control Block with information panel;</li> <li>• Program Control Block ;</li> <li>• Marker Beacon RMM-95 or MPM-B, or instead of markers - distance measuring equipment RMD-90 or DME-40</li> </ul>	ИЦРВ.461512.018-01 ИЦРВ.461512.019-01 ИЦРВ.461512.020-01 ИЦРВ.465635.005 ИЦРВ.468232.007 АИЦТ.461512.005 АИЦТ.461512.001 ТЖ1.400.093 ИЦРВ.461512.013-01 FSDDE0360075-18	Closed JSC "NIIIT-RTS", Russia	124	30.03.99	
	Landing system СП-90Н featuring localizer antenna АИЦТ.461611.004 and the antenna tower of the glide-path beacon АИЦТ.464611.012	ИЦРВ.461512.018-01	JSC "NIIIT-RTS", Russia	Addition № 1 to Certificate № 124	29.12.05	
	Landing system СП-90Н with Remote control Equipment АИЦТ.461512.011, User Program "Multiconsole" АИЦТ.51201-1.1 and operating system QNX, version 4.25			Addition № 2 to Certificate № 124	27.04.06	
	Landing system СП-90Н 90 with Farfield Device АИЦТ.462992.004			Addition № 3 to Certificate № 124	27.04.06	
53	Controller multi-channel recorder "MIRROR"	6573-002-46634425-99	Closed JSC "NIKOR", Russia	125	12.04.99	
		НКГП.465322.002 НКГП.465322.002-01 НКГП.465322.002-02		Addition №1 to Certificate № 125	16.07.07	
54	Instrument Landing System NM 7000 Series with Antenna NM 3500 Series including: <ul style="list-style-type: none"> <li>• Localizer with Remote Control and Monitoring System;</li> <li>• Glide Path with Remote Control</li> </ul>	See Note <sup>1)</sup>	NAVIA AVIATION AS, Norway	149	15.05.99	

	and Monitoring System; • Marker Beacon with Remote Control and Monitoring System					
55	Registry system of traffic controllers talks (AVIATON)	6651-002-41529014-99	Open JSC Science – Technical Centre “EVRAAS”, Russia	154	22.07.99	Certificate suspended 16.06.03 to 20.09.04
		ЕВБК.466533.001		Addition № 1 to Certificate № 154	28.06.04	
56	Transmitters of the VHF Radiocommunication equipment SERIES 200: • Single-channel transmitters; • Multi-channel transmitters	SU221 SU251 SU220A SU250A	ROHDE & SCHWARZ GmbH & Co. KG, Germany	155	16.08.99	See Note <sup>1)</sup>
			Closed JSC “Saturn”, Russia	Addition № 1 to Certificate № 155	03.07.02	Serial production approved
			Open JSC “Sapphir”, Russia	Addition № 2 to Certificate № 155	19.04.04	Serial production approved
			Open JSC “Gorkiy A.S. Popov Communications Equipment Plant”, Russia	Addition № 3 to Certificate № 155	12.11.07	Serial production approved
			Open JSC “Production association	Addition № 4 to	05.02.08	Serial production approved

			“Azimut”, Russia	Certificate №155		
57	Receivers of the VHF Radiocommunication equipment SERIES 200: <ul style="list-style-type: none"> <li>• Single-channel receivers ;</li> <li>• Multi-channel receiver</li> </ul>	EU231A EU231D EU230A	ROHDE & SCHWARZ GmbH & Co. KG, Germany	156	16.08.99	See Note <sup>1)</sup>
			Closed JSC “Saturn”, Russia	Addition № 1 to Certificate № 156	03.07.02	Serial production approved
			Open JSC “Sapphir”, Russia	Addition № 2 to Certificate № 156	19.04.04	Serial production approved
			Open JSC “Gorkiy A.S. Popov Communications Equipment Plant”, Russia	Addition № 3 to Certificate № 156	12.11.07	Serial production approved
			Open JSC “Production association “Azimut”, Russia	Addition № 4 to Certificate №156	05.02.08	Serial production approved
58	Transceivers of the VHF Radiocommunication equipment SERIES 200: <ul style="list-style-type: none"> <li>• Single-channel transceivers;</li> <li>• multi-channel transceivers</li> </ul>	XU221 XU251 XU220A XU250A	ROHDE & SCHWARZ GmbH & Co. KG, Germany	157	16.08.99	See Note <sup>1)</sup>
			Closed JSC “Saturn”, Russia	Addition № 1 to Certificate № 157	03.07.02	Serial production approved
			Open JSC “Sapphir”, Russia	Addition № 2 to Certificate № 157	19.04.04	Serial production approved
			Open JSC “Gorkiy A.S. Popov Communications	Addition № 3 to Certificate	12.11.07	Serial production approved

			Equipment Plant", Russia	№ 157		
			Open JSC "Production association "Azimut", Russia	Addition № 4 to Certificate №157	05.02.08	Serial production approved
59	Antenna System	HK 353A 4002.1200.80	ROHDE & SCHWARZ GmbH & Co. KG, Germany	158	16.08.99	Special limitations
60	Automated homing radio station "PARSEK" with control and monitoring equipment	ЖЯ1.200.329 ЖЯ1.310.049	Open JSC "MART", Russia	159	27.08.99	
			Open JSC "Russian Institute for Hard Radio Industry", Russia	Addition № 1 to Certificate №159	31.10.05	Certificate Owner changed
61	Equipment for treatment with radiolocation signals "KORS"	ИЛЮБ.468910.001	Closed JSC "PELENG", Russia	160	20.09.99	
62	Multichannel system for automatic registration of radiolocation and audio information "SMART"	ИЛЮБ.467660.000	Closed JSC "PELENG", Russia	161	20.09.99	
63	Equipment system for single time "TAKHION"	КАЯЦ.461211.002	Closed JSC "PELENG", Russia	162	20.09.99	
				Addition № 1 to Certificate №162	01.06.07	
64	Marker Beacon MPM-97	P-203-000-000	Closed JSC "TECHNO-MARIN", Russia	175	04.11.99	
65	VHF AM Fixed Ground to Air VDL Transceiver (employing A2D modulation modes)	5525- D8	Park Air Electronics LTD, England	176	04.11.99	
66	Series of unify on-ground VHF radios for aviation air connection "Phazan"	ХЖ1.102.020 ХЖ1.102.021 ХЖ1.102.024 ХЖ1.102.023 ХЖ1.102.022	Open JSC "Vladimir construction bureau for radio connection", Russia	179	01.12.99	
67	Apparatus for metering and processing of radar information on radiolocation position "Obzor-RB"	ЕИРВ.461314.026 ЕИРВ.50717-	State Scientific Industrial Company	180	01.12.99	
				Addition № 1 to	12.08.05	

		01	"AGAT", Republic of Belarus	Certifi- cate № 180		
68	Apparatus for processing of information "Holodnoye nebo"("Cold Sky")	ПИСК.466535. 001	Closed JSC "TRIMAS", Russia	185	09.12.99	Certificate suspended 26.08.02
69	Automatic traffic controller's workplace of the aria of an airdrome with low and middle intensity of air traffic "SINTEZ- ARM-A"	ТАЛМ.461921. 011	Closed JSC "VNIIRA- OVD", Russia	186	23.12.99	Special limitations
			JSC VNIIRA, Russia	Additi-- on № 1 to Certifi- cate №186	08.12.06	Serial production approved
70	Automatic traffic controller's workplace of the aria of ATC with low and middle intensity of air traffic "SINTEZ-ARM-R"	ТАЛМ.461921. 010	Closed JSC "VNIIRA- OVD", Russia	187	23.12.99	Special limitations
			JSC VNIIRA, Russia	Additi-- on № 1 to Certifi- cate №187	08.12.06	Serial production approved
71	Means complex of automati- cation for air traffic control in the areas of airdromes and ATC areas with middle intensity of air traffic "SINTEZ-KSA UVD"	ТАЛМ.461214. 001	Closed JSC "VNIIRA- OVD", Russia	188	23.12.99	Special limitations
			JSC VNIIRA, Russia	Additi- on № 1 to Certifi- cate №188	08.12.06	Serial production approved
72	Non-directional radio beacon APM-150M	P206-000-000	Closed JSC "Technoma- rin", Russia	190	23.12.99	Special limitations
	Non-directional radio beacon APM-150MA	P267-000-000		Additi- on № 1 to Certifi- cate №190	07.02.05	Special limitation not be extended
73	Industrial recording system MCP-6000	КСЕФ.421459. 007	Open JSC "ESTRA", Moscow, Russia	193	08.02.00	
74	Means complex of automation for air traffic organisation in the area of airdrome "Bug" with applied software	ЕИРВ.466453. 024 ЕИРВ.10067	State Scientific Industrial Company	194	08.02.00	

			"AGAT", Republic of Belarus			
75	Means complex of automation for air traffic organisation in the area of airdrome "Sozh" with applied software	ЕИРВ.466453. 025 ЕИРВ.10068	State Scientific Industrial Company "AGAT", Republic of Belarus	195	08.02.00	
76	Module for connection of radiolocational information with applied software	ЕИРВ.466531. 001 ЕИРВ.10066	State Scientific Industrial Company "AGAT", Republic of Belarus	196	08.02.00	
77	Centre for commutation of information "Potok-05" with software	РЦО.051000. 000	Shareholders society with limited responsibility "Regional Service Centre for Telecommunication Means of Civil Aviation", Russia	197	14.02.00	Certificate suspended 15.01.03
78	Complex of automatic display "TOPAZ-2000" with applied software	ЦИВР.468369. 010 ЦИВР.00074	Federal State Unitary Enterprise "Lianozovskiy Electromechanical Plant", Russia	202	29.04.00	
79	Centre for commutation of information "Monitor" with software	ИРАН.465616. 200	Shareholders society with limited responsibility "Monitor soft", Russia	203	15.05.00	
80	Automatic workplace "Monitor-3" with software	ИРАН.465630. 100	Shareholders society with limited responsibility	204	15.05.00	

			y "Monitor soft", Russia			
81	Automatic direction finder АРП-95 with program monitoring complex	АИЦТ.461512. 003 АИЦТ.461512. 005	Close JSC "Scientific- rese-arch Institute of Measuring Equipment – Radiotechni- cal Complexes ", Russia	205	29.05.00	
				Additi- on № 1 to Certifi- cate №205	14.08.07	Serial production approved
82	Non-direction radio beacon РМП-200 with program monitoring complex	АИЦТ 461512. 003 АИЦТ 461512. 005	Close JSC "Scientific- research Institute of Measuring Equipment – Radiotechni- cal Complexes ", Russia	206	29.05.00	
	Non-direction radio beacon РМП-200 with Remote control Equipment АИЦТ.461512.011, User Program "Multiconsole" АИЦТ.51201-1.1 and operating system QNX, version 4.25	АИЦТ.461512. 004 АИЦТ.461512. 011		Additi- on №1 to Certifi- cate № 206	27.04.06	
83	Automatic High Frequency Wave range radio transmitters with output: • 100 W (ПП-100); • 500 W (ПП-500); • 1000 W (ПП-1000) •	ЖЯ1.200.334 ЖЯ1.200.336-01 ЖЯ1.200.336	Open JSC "Russian Institute for Hard Radio Industry", Russia	207	29.05.00	
	Automatic High Frequency Wave range radio transmitters with output: • 500 W (ПП-500); • 1000 W (ПП-1000)	ЖЯ1.200.336-01 ЖЯ1.200.336		Additi- on №1 to Certifi- cate № 207	28.04.09	Serial production approved
84	Complex automatic informational system АДП with software	49865125. 665600.300	Sharehol- ders society with limited Responsibi- lity "ARIS Aerotechno- logia", Russia	208	29.05.00	Certificate suspended 18.04.03
85	Equipment for documentation of voice information "Serii ET"	ЖИСД.421459. 002	Science and Technical Centre "Elektron- tech" of	211	29.06.00	

			Russian Science Academy			
86	Multichannel digital complex for signal registration "Stealth Line+"	ГТАД.001.99	Shareholders society with limited Responsibility Trade House "Gran Pri+", Russia	212	14.07.00	Certificate was suspended 11.06.03 to 10.12.07
		ГТАД.466534.099		Addition № 1 to Certificate № 212	19.04.04	Special limitations
87	Means complex of automation for air traffic control in the areas of airdromes and ATC areas with high and middle intensity of air traffic "SINTEZ-A2"	ТАЛМ.461214.002	Closed JSC "VNIIRA-OVD", Russia	213	25.07.00	Special limitations
			JSC VNIIRA, Russia	Addition № 1 to Certificate № 213	08.12.06	Series production granted
88	Automatic High Frequency Wave range transceivers with output: <ul style="list-style-type: none"> <li>• Issued 100 W (ПТ-100);</li> <li>• 500 W (ПТ-500);</li> <li>• 1000 W (ПТ-1000)</li> </ul>	ЖЯ1.200.337 ЖЯ1.200.323-01 ЖЯ1.200.323	Open JSC "Russian Institute for Hard Radio Industry", Russia	216	23.08.00	Serial production approved
				Addition № 1 to Certificate № 216	28.04.09	
89	Equipment for control and monitoring of far radio station "TANGENTA+"	АКОМ.468323.010	Closed JSC "AEROKOM", Russia	217	31.08.00	
				Addition № 1 to Certificate № 217	26.05.05	
90	Automatic SW receiver ПТ-100	ЖЯ2.000.129	Open JSC "Russian Institute for Hard Radio Industry", Russia	223	09.11.00	Serial production approved
				Addition № 1 to Certificate № 223	28.04.09	
91	Track radar complex "Utyes-T"	ЦИВР.461321.004	Federal State Unitary Enterprise "Lianozovo Electro-	224	01.12.00	

			mechanical Plant", Russia			
92	THOMSON-CSF AIRSYS Company's sweeping track radar without secondary channel installed in Kazan airdrome aria	TRAC2300 № 46140297	Regional State enterprise "Tataeronavi gatsia", Russia	226	15.12.00	Special limitations
93	Multi-channel digital tape recorder "Registrator" with software	KCAУ.469534.001 KCAУ.10011-01	Scientific industrial republican enterprise "SKB KAMERTON", Republic of Belarus	228	22.12.00	
94	Centre for communication of information "Potok-05M" with software	РЦО.052000.000	Shareholders society with limited responsibility "Regional Service Centre for Telecommunication Means of Civil Aviation", Russia	229	16.01.01	Certificate suspended 15.01.03
95	Automatic terminal information system with an optical display system СВІП	МБКФ.465326.001	"VERITEK" Ltd., Russia	237	11.03.01	Certificate was suspended 18.03.03 to 05.08.05
			LLC "Center of Scientific and Technical Research "Eleron", Russia	Addition № 1 to Certificate №237	21.07.05	Certificate Owner changed
				Addition № 2 to Certificate №237	14.06.07	Serial production approved
96	Two-range uniimpulse secondary radar for terminal (airhub) and regional ATC systems МВРЛ-СВК	ТАЛМ.462611.000-01	Closed JSC "VNIIRA-OVD", Russia	242	11.03.01	
			JSC VNIIRA, Russia	Addition № 1 to	08.12.06	Serial production approved

				Certificate №242		
97	Communication System 3020X with Technical Monitoring and Control System and Software	3020X	FREQUENTIS Nachrichten-technik G.m.b.H., Austria	243	26.04.01	
98	Voice Communication System 3025 with Technical Monitoring and Control System and Software	3025	FREQUENTIS Nachrichten-technik G.m.b.H., Austria	244	26.04.01	
99	Optical displaying equipment "Kometa-2M" with special software compatible with operational system Windows NT (version not below than 4.0.)	БИЕС.466451.001	Closed JSC "NТPO "VEKTOR", Russia	253	28.05.01	
	Optical displaying equipment "Kometa-2M" with special software	БИЕС.467829.04ПО БИЕС.468214.015ПО БИЕС.468153.003ПО		Addition № 1 to Certificate №253	06.02.06	
100	Precision time system "Metronom" for ATC system equipment synchronization	52165437.68173.004	"New Information Technologies in the Aviation", LLC, Russia	255	09.07.01	
	Precision time system "Metronom" for ATC system equipment synchronization with special software	НКПГ.465616.001 НКПГ.10204-01		Addition № 1 to Certificate №255	21.10.04	
101	ATM personnel multipurpose consoles of the series "Pult-A"	52165437.42364.005	"New Information Technologies in the Aviation", LLC	256	09.07.01	
		НКПГ.469518.001-02		Addition № 1 to Certificate №256	21.10.04	
102	Complex of technical facilities for air traffic control with ADS function and controller-pilot data link communication (CPDLS) produced by ARINC company (USA) installed in the Magadan area US ATM centre	-	State Unitary Subsidiary Enterprise "North East Air Navigation", Russia	257	27.07.01	Special limitations
103	Complex for reception, processing and optical displaying information on air situation "TOPAZ MK 2000" with special software	ЦИВР.468369.032 ЦИВР.00097.12	Federal State Unitary Enterprise	261	30.08.01	Special limitations

			"Design Bureau "LIRA, Russia			
104	Complex of soft-and hardware "MTs-SKALA" with special software	417353168.00001.02	Moscow center for automated air traffic Control, Russia	265	14.09.01	Special limitations
105	Complex of transmitting means for radar, bearing, voice and control information "Ladoga" with special software	52165437.4233.006 52165437.00006.01	"New Information Technologies in the Aviation", LLC, Russia	266	25.10.01	
		НКПГ.465616.001 НКПГ.10205-01		Addition № 1 to Certificate №266	21.10.04	
		НКПГ.465616.001-03.01 НКПГ.10205-02.01		Addition № 2 to Certificate №266	31.05.07	
		НКПГ.465616.001-03.02 НКПГ.10205-02		Addition №3 to Certificate №266	31.05.07	
106	Complex of means for automatization of air traffic planning "Planeta" with special software	52165437.5015.009 52165437.00009.01	"New Information Technologies in the Aviation", LLC, Russia	267	15.11.01	
		НКПГ.466453.001 НКПГ.10210-01		Addition №1 to Certificate №267	21.10.04	
107	Ground fixed satellite communication station "MOST-US"	СИКЛ.461621.000	Open JSC "Radiophizika", Russia	269	26.12.01	Certificate cancelled 03.05.06
108	Ground fixed satellite communication station "MOST-AS"	СИКЛ.461621.002	Open JSC "Radiophizika", Russia	270	26.12.01	Certificate cancelled 03.05.06
109	Ground fixed satellite communication station "MOST-AS"	СИКЛ.461621.007	Open JSC "Radiophizika", Russia	271	26.12.01	Certificate cancelled 03.05.06
110	Equipment for transmission of radar information over a radio	ПРКТ.467220.001	Close JSC "PRIOR",	272	16.01.02	

	channel "PRIOR"		Russia			
111	Automated shift engineer workplace "PRIOR" with special software	ПРКТ.467320.002	Close JSC "PRIOR", Russia	273	16.01.02	
112	Multichannel audio signal and radar information registration system (type recorder "Granit")	52165437.657.003	"New Information Technologies in the Aviation", LLC, Russia	276	19.02.02	
	Multichannel audio signal and radar information registration system (type recorder "Granit") with special software	НКПГ.466459.001 НКПГ.10202-01		Addition № 1 to Certificate №276	21.10.04	
113	Air situation display system on digital raster screen monitors "NORD"	52165437.6812.002	"New Information Technologies in the Aviation", LLC, Russia	277	19.02.02	
	Air situation display system on digital raster screen monitors "NORD" with special software	НКПГ.466452.001 НКПГ.10201-02		Addition № 1 to Certificate №277	21.10.04	
114	Complex of means for air traffic control automation "Alpha"	52165437.6812.001	"New Information Technologies in the Aviation", LLC, Russia	278	19.02.02	
	Complex of means for air traffic control automation "Alpha" with special software	НКПГ.466451.001 НКПГ.10201-01		Addition № 1 to Certificate №278	21.10.04	
		НКПГ.466451.001-03 НКПГ.10201-05		Addition № 2 to Certificate №278	10.05.07	
115	Aerodrome radar complex "UTES-A"	ЦИВР.461321.005	Federal State Unitary Enterprise "Lianozovo Electromechanical Plant", Russia	279	28.02.02	Special limitations
116	Voice communication switching system "Megaphone" with special software	521654437.6652.007	"New Information Technologies in the Aviation", LLC, Russia	280	02.04.02	
		НКПГ.465235.001 НКПГ.10203-01		Addition № 1 to Certificate №280	21.10.04	
		НКПГ.465235.001-		Addition	25.05.06	

		03 НКПГ.10231-03 НКПГ.10232-03 НКПГ.10233-03		№2 to Certificate №280		
117	Autonomous secondary Radar "Raduga-K" with special software	ЮКСВ.462611.004	"Informtechnology" Ltd, Russia	281	12.04.02	Certificate suspended 28.03.06
118	Local ground checking-adjusting station ЛККС-А-2000 for combined navigational system GLONASS/GPS with software	СИЯМ.466539005	Company with limited Responsibility "NPPF SPECTR", Russia	283	30.05.02	For specimen No 1013423. Certificate cancelled 02.12.05
119	Master Clock Station "ИВЧ-1"	ЯКШГ.468262.001	LLC "Decima", Russia	286	12.08.02	Certificate cancelled 01.06.06
120	Controller console "ПД-1"	ЯКШГ.467848.001.	LLC "Decima", Russia	287	12.08.02	Certificate cancelled 01.06.06
121	Synchronized recording complex of ATM processes with software	ЯКШГ.466535.001	LLC "Decima", Russia	288	20.08.02	Certificate cancelled 01.06.06
122	Digital multi-channel sound recorder ДМ-200	6573-001-29314593-2002	Company with limited responsibility "Videoton service", Russia	289	20.08.02	For specimen № VMFV 2001
123	Automated system for planning of air traffic and calculation of enroute facility charge with software	17675535.425000.030	Federal State Unitary Enterprise Main Air Traffic Flow Management Center, Russia	290	21.08.02	Special limitations
124	Integral Monopulse Secondary Radar "Krona" with special software	ИЦРВ.461511.035-01	Close JSC "Scientific-research Institute of Measuring Equipment – Radiotechnical Complexes", Russia	303	16.12.02	
125	Integral Monopulse Secondary Radar "Krona" with special software	ИЦРВ.461511.035-04	Close JSC "Scientific-research Institute of Measuring Equipment –	304	16.12.02	

			Radiotechnical Complexes", Russia			
126	Controller consoles "Ryad"	54-53-408-0141	State Unitary Enterprise "Experimental Factory № 408", Russia	306	23.12.02	For specimen No 16-19. Certificate and Addition No. 1 suspended 17.06.08
		ГУРИ.423649.001		Addition № 1 to Certificate №306	23.12.03	Serial production approved
127	Aerodrome Radar Complex "Amur" with special software	ЮКСВ.462611.007	"Informtechnology" Ltd, Russia	320	18.03.03	Certificate suspended 28.03.06
128	Aerodrome Primary Radar "Amur" with special software	ЮКСВ.462611.008	"Informtechnology" Ltd, Russia	321	18.03.03	Certificate suspended 28.03.06
129	Control consoles for air traffic control systems "KPU TOPAZ"	ЦИВР.422419.000	Open JSC "Lianozovo Electromechanical Plant", Russia	322	15.04.03	
130	Non-Directional Radio Beason "Privod-3"	P-240-000-000	JSC "Technomarine, Russia	323	18.04.03	Special limitations
131	Air Route Radar Complex "Lira-T" with special software	ЦИВР.462418.013	Open JSC "Lianozovo Electromechanical Plant", Russia	330	25.07.03	Special limitations
132	Automatic Voice Reports Compiler "Popugai" and its modification	ШВАЮ.467287 ШВАЮ.467287-01	"NTF Sokol Technological and Research Company", JSC, Russia	331	29.08.03	For specimen No 56, 57
		ШВАЮ.467287.001 ШВАЮ.467287.001-01		Addition № 1 to Certificate №331	29.07.08	
	Automatic Voice Reports Compiler "Popugai" and its modification with special software	ШВАЮ.467287.001 ШВАЮ.467287.001-01		Addition № 2 to	26.12.08	Addition №1 cancelled

		ШВАЮ.00005-01 12 01 ШВАЮ.00005-01 12 02		Certificate №331		26.12.08
133	Airport surface surveillance radar "Atlantika" with facilities for processing, display and documentation of radar data and applications software	ВИТЯ.464418. 001	Open JSC "Experimental Plant", Russia	332	01.09.03	
		ВИТЯ.464418. 001-02		Addition № 1 to Certificate № 332	21.04.05	
		ВИТЯ.464418. 001-03 ВИТЯ.00001-02		Addition № 2 to Certificate №332	27.04.06	
		ВИТЯ.464418. 001-04 ВИТЯ.464417. 001-06 ВИТЯ.468364. 006-03  ВИТЯ.00009 ФЛИР.80001-01		Addition № 3 to Certificate №332	31.03.09	
134	Complex of technical facilities for air traffic control automation in the general ATC areas, aerodrome (airhub) areas, including a take-off and a touchdown zones "SINTEZ-AR2" with a software	ТАЛМ.461214. 003	Closed JSC "VNIIRA- OVD", Russia	333	09.09.03	
				JSC VNIIRA, Russia	Addition № 1 to Certificate №333	08.12.06
135	Complex of technical facilities for air traffic control automation in the general ATC areas and ATC areas with high and mean intensity of air traffic "SINTEZ-R2" with a software	ТАЛМ.461214. 004	Closed JSC "VNIIRA- OVD", Russia	334	11.09.03	
				JSC VNIIRA, Russia	Addition № 1 to Certificate- №334	08.12.06
136	Dipole Antenna ACB-MB2	ИСКМ.464641. 016	Federal state unitary enterprise "Research and Production	335	14.11.03	Certificate was suspended 31.01.07 to 02.06.08

			Company "Polyot", Russia			
137	Dipole Antenna ACB-MB2-ДМВ1	ИСКМ.464641. 017	Federal state unitary enterprise "Research and Production Company "Polyot", Russia	336	14.11.03	Certificate was suspended 31.01.07 to 02.06.08
138	Equipment for processing of radar data "Ladoga" with special software ИВО-ТТО	ЕУ1.623.005- 01	JSC "VNIIRA", Russia	342	11.12.03	
139	Equipment for processing of radar data "Ladoga" with function of universal timing and special software ИВО-ТТО	ЕУ1.623.005	JSC "VNIIRA", Russia	343	11.12.03	
140	Unified Complex for Conversion and Display of Information for ATC systems "STROKA-Ts" with a software	ЖЯ1.070.001	Open JSC "Russian Institute for Power Radiobuild- ing", Russia	344	24.12.03	
141	Precision Approach and Landing System SP-03	КБМП.461512. 000	Federal State Unitary Enterprise "Kuznetsk Radio Equipment Factory", Russia	348	22.01.04	Certificate was suspended 27.04.06 to 28.11.06
142	Homing automated radio station PAR-10MS	ПЯИУ.464221. 013	Federal State Unitary Enterprise "Omsk Production Association "Irtysk", Russia	349	27.01.04	
		ПЯИУ.464221. 013-01		Additi- on № 1 to Certifi- cate №349	29.07.09	
143	Marker Beacon "Kvarts-MRM"	УИЯД.464212. 001	Federal State Unitary Enterprise "Omsk	350	27.01.04	Special limitations

			Production Association "Irtys", Russia			
144	Self-contained Unattended VHF Repeater "ANR-1"	КШСП.464411.001	LLC "Center of Scientific and Technical Research "Eleron", Russia	351	24.02.04	
145	Air route radar complex "Utyes-T" with applications software	ЦИВР.461321.004-001	Open JSC "Lianozovo Electromechanical Plant", Russia	352	15.03.04	
		ЦИВР.461321.004-002		Addition № 1 to Certificate №352	27.12.05	
		ЦИВР.461321.004-003		Addition № 2 to Certificate №352	07.07.06	
146	Complex for recording of voice and position information for air traffic control systems "Aviator" with applications software	ЦИВР.462418.019	Open JSC "Lianozovo Electromechanical Plant", Russia	353	18.03.04	
147	Controller consoles produced by "Frequentis Nachrichtentechnik Gesellschaft m.b.H." (Austria) and installed in the International Airport Sheremetyevo	NP-19	Open JSC "International Airport Sheremetyevo", Russia	354	18.03.04	
148	Timing complex for air traffic control systems "KSV TOPAZ" with applications software	ЦИВР.462418.020	Open JSC "Lianozovo Electromechanical Plant", Russia	355	12.04.04	
149	VHF Antenna	ВАИШ.464641.027	Open JSC "Sapfir", Russia	356	14.04.04	

150	VHF/UHF Antenna in the range from 118 to 137 MHz	ВАИШ.464641.027-01	Open JSC "Sapfir", Russia	357	14.04.04	
151	Transceiver "Polyot-1M1" and its modification	ИГЛМ.464421.001 ИГЛМ.464421.001-01	LLC "Design and Technological Centre "SIGNAL", Russia	358	16.04.04	Special limitations
			Open JSC "Electro-signal Corporation", Russia	Addition № 1 to Certificate №358	28.06.05	Certificate Owner changed
152	Transmitter "Polyot-1AM1" and its modification	ИГЛМ.464115.001 ИГЛМ.464115.001-01	LLC "Design and Technological Centre "SIGNAL", Russia	359	16.04.04	Special limitations
			Open JSC "Electrosignal Corporation", Russia	Addition № 1 to Certificate №359	28.06.05	Certificate Owner changed
153	Receiver "Polyot-M1"	ИГЛМ.464318.001	LLC "Design and Technological Centre "SIGNAL", Russia	360	16.04.04	Special limitations
			Open JSC "Electrosignal Corporation", Russia	Addition № 1 to Certificate №360	28.06.05	Certificate Owner changed
154	Radio-communication equipment "Yurok-A": - transceivers; - receivers	ИЖ1.101.055-02.01; ИЖ1.101.055-02.04	LLC "Design and Technological Centre "SIGNAL", Russia	362	19.05.04	Special limitations
			Open JSC "Electrosignal Corpo-	Addition № 1 to	28.06.05	Certificate Owner changed

			ration ”, Russia	Certifi- cate №362		
155	Radio communication equipment “Yurok-N”: - transceivers; - receivers	ИЖ1.101.055- 03.01; ИЖ1.101.055- 03.02; ИЖ1.101.055- 03.40 ИЖ1.101.055- 03.45	LLC “Design and Technolo- gical Centre “SIGNAL”, Russia	363	31.05.04	Special limitations
			Open JSC “Electrosig- nal Corpo- ration ”, Russia	Additi- on № 1 to Certifi- cate №363	28.06.05	Certificate Owner changed
				Additi- on № 2 to Certifi- cate №363	18.12.07	Special limitation changed
156	Transceivers produced by ICOM Inc. (Japan)	IC-A110	Moscow Automated Air Traffic Control Center, Russia	365	10.08.04	Special limitations
157	Surface movement Radar station TERMA SCANTER 2001	262183-010	Terma A/S – Radar Systems, Denmark	372	21.12.04	Special limitations
158	The A-SMGCS airfield surveillance and control subsystem A3000 running on SuSE Linux 8.2 and including application software	00-06-02	HITT Holland Institute of Traffic Technology B.V., Netherlands	373	21.12.04	Special limitations
159	Complex of technical facilities for automation of processing and optical displaying of air conditions to ensure the planning and air traffic control processes “TOPAZ OVD” with applications software	ЦИВР.462418. 018	Open JSC “Lianozovo Electromech anical Plant”, Russia	382	09.02.05	
				Additi- on № 1 to Certifi- cate № 382	01.06.09	Series production granted
160	Complex of hardware/ facilities “Information Server” with applications software	ИЛЮБ.465632. 003	Closed JSC “PELENG”, Russia	383	15.04.05	
		ИЛЮБ.465632. 003-01		Additi- on № 1 to Certifi- cate №383	10.06.08	Scope of certificate application extended

161	Console frameworks for fitting of work places of ATC controllers of series "Pult-V"	БИЕС.469518.001	Closed JSC "Vektor", Russia	385	19.04.05	
162	Equipment for primary processing of radar data APOI "VNIIRA-OVD" with software	ТАЛМ.466452.001	Closed JSC "VNIIRA-OVD", Russia	390	21.09.05	
			JSC VNIIRA, Russia	Addition № 1 to Certificate №390	08.12.06	Series production granted
163	Terminal Area Radar URAL with special software	ПРАМ.462600.001	Northern Radio Plant, LLC, Russia	391	07.10.05	
			Open JSC VNIIRA, Russia	Addition № 1 to Certificate №391	08.12.06	Series production granted
164	Monopulse Secondary Radar "Krona-M" System with software	ИЦРВ.461511.032-06	Close JSC "Scientific-research Institute of Measuring Equipment – Radiotechnical Complexes", Russia	392	12.10.05	
165	ATC Controller Workstation "Master" with software	ИЛЮБ.468213.011	JSC "Peleng", Russia	398	25.11.05	
166	Local Monitoring Corrective Station LKKS-A with software	КНТА.466539.005	LLC "NPPF SPECTR", Russia	399	02.12.05	Special limitations
	Local Monitoring Corrective Station ЛККС-А-2000 with remote ATC Controller panels and on-duty engineer panel	КНТА.466539.005 КНТА.468422.001 КНТА.468422.001-1 КНТА.468422.002		Addition № 1 to Certificate №399	28.03.08	Scope of certificate application extended
	Local Monitoring Corrective Station ЛККС-А-2000 with satellite receivers unit, including: - autonomous remote control receiver, - GNSS remote display for monitoring various aircraft flight stages, - applicable software	КНТА.466539.005 КНТА.468511.006 КНТА.00219.05 96-21		Addition № 2 to Certificate №399	22.12.08	
167	Aerodrome Radar Complex "Lira-A10" with software	ЦИВР.461311.006	Open JSC "Lianozovo Electromechanical	400	02.12.05	
		ЦИВР.461311.006-15		Addition №	22.11.07	Scope of certificate

			Plant", Russia	1 to Certificate №400		application extended
168	Built-in Secondary surveillance Radar "Lira-BA" with software	ЦИВР.462611.002	Open JSC "Lianozovo Electromechanical Plant", Russia	401	02.12.05	
169	Ground radio means of series «Phazan-19»: - radio station " Phazan -19R50"; - radio station " Phazan -19R5"; - radio transmitter " Phazan-19R50"; - radio reseiver " Phazan-19PRM"	ХЖ1.102.025 ХЖ1.102.026 ХЖ1.102.027 ХЖ1.102.028	Open JSC «Vladimir Plant "Elektropribor"», Russia	404	03.03.06	
170	The Ground-based Communication, Navigation and Observation Station "Pulsar-N" with VHF Datacom line of mode 4 and applications software	НКПГ.464511.006	"New Information Technologies in the Aviation", LLC, Russia	405	10.04.06	
171	Complex of Voice Communication Equipment "KARS TOPAZ" with applications software	ЦИВР.462418.021-01	Open JSC "Lianozovo Electromechanical Plant", Russia	408	02.05.06	Series production granted
				Addition № 1 to Certificate № 408	01.06.09	
172	Surface Movement Guidance and Control Complex System with software	NOVA 9000	Park Air Systems AS, Division Nova, Norway	409	22.05.06	Special limitations
173	Automatic Radio Direction Finder DF 2000	ВАИШ.462112.016-13	Open JSC Production Association "Azimut", Russia	410	29.06.06	
174	HF Radio receiver "EI" (radio signal class H3E, R3E, J3E, J7B, F1B)	ЦЛ2.003.150	Federal state unitary enterprise "Omsk Instrument Making Plant named Kozitsky", Russia	411	24.07.06	Certificate suspended 31.01.07
175	The Passive surveillance system with software	P3D-AS	ERA a.s., Czech Republic	415	28.08.06	Special limitations
176	The Passive surveillance system with software	P3D-WS	ERA a.s., Czech Republic	416	28.08.06	Special limitations
177	UHF Distance Measuring Equipment	ВАИШ.461512.	Open JSC Production	418	25.10.06	Special limitations

	DME 2000 with software	002	Association "Azimut", Russia			
178	Voice communication switching system ICS 200/60 with software	SZ.ICS.200.60	Scgmid Telecom A.S., Switzerland	420	08.11.06	
				Addition № 1 to Certificate №420	01.02.07	
179	Antenna OA 2000V	ВАИШ.464641.033	Open JSC Production Association "Azimut", Russia	423	17.11.06	
180	Doppler VHF Omni-directional Radio Range DVOR 2000 with software	ВАИШ.461512.001	Open JSC Production Association "Azimut", Russia	429	29.11.06	
181	Air Traffic Control automatic complex for processing radar and position finding and planned information components MC УВД-4 и MC УВД-8 with software	АСГК.461251.042-39 АСГК.461251.042-39.01	Public JSC "Moscow Research Institute for Instrumented Automatics", Russia	430	07.12.06	
182	T6 VHF AM Fixed Ground radio equipment series 2: - T6T transmitters; - T6TR transceiver; - T6R receiver; - controller BT6C; - Hub part Number BT6H; - MARC Multi Access Remote Control and monitoring system with software	B6350, B6350HS, B63100HS. B6550 B6100	Park Air Systems Ltd, England	433	28.12.06	Special limitations
183	Primary Surveillance Radar URAL with software	ПРАМ.462600.001-01	Northern Radio Plant, LLC, Russia	434	28.12.06	
184	Landing System SP-200 with software	АИЦТ.461512.018	Closed JSC "Scientific-research Institute of measuring equipment – radiotech-	435	28.12.06	

			anical systems", Russia			
185	Marker Beacon RMM-200 with antenna	АИЦТ.461512.010, АИЦТ.468571.015-01, АИЦТ.468571.018	Closed JSC "Scientific-Research Institute of Measuring Technology - Radiotechnical Systems", Russia	439	12.04.07	
186	Ground data transmitting complex «Rubin-M»	ИСКМ.465616.008	Federal State Unitary Enterprise «Research and Production Company «Polyot», Russia	447	29.10.07	
187	Transceivers RX 2500V with applicable software	ВАИШ.464514.005-02 ВАИШ.464514.005-02.01 ВАИШ.464514.005-02.02 ВАИШ.464514.005-02.03 ВАИШ.464514.005-02ПО2 ВАИШ.464514.005-02ПО4	Open JSC "Production Association "Azimut", Russia	459	22.05.08	Special limitations
188	Radio receivers RX 2000V with applicable software	ВАИШ.464318.003-02 ВАИШ.464318.003-02.01 ВАИШ.464514.005-02ПО2 ВАИШ.464514.005-02ПО4	Open JSC "Production Association "Azimut", Russia	460	22.05.08	Special limitations
189	Radio Transmitters TX 2500V with applicable software	ВАИШ.464117.002-02 ВАИШ.464117.002-02.01 ВАИШ.464514.005-02ПО2 ВАИШ.464514.005-02ПО4	Open JSC "Production Association "Azimut", Russia	461	22.05.08	Special limitations
190	XK2100L HF transceiver series XK 2000 with applicable software XK2101S	6033.0508.02 6090.2758.02 or 6090.2758.07	ROHDE and SCHWARZ GMBH and CO. KG, Germany	464	21.08.08	Special limitations
				Addition № 1 to Certificate № 464	22.06.09	Limitations have been changed
191	XK2500 HF transceivers series XK2000 with applicable software GX2901S	6071.0518.02 6071.0518.03 6071.0518.72 6071.0518.73 6090.2506.02 or	ROHDE and SCHWARZ GMBH and CO. KG, Germany	465	21.08.08	Special limitations
				Addition № 1 to	22.06.09	Limitations have been changed

		6090.2506.07		Certificate № 465		
192	XK2900L HF transceivers series XK2000 with applicable software GX2901S	6057.9992.02 6057.9992.03 6057.9992.72 6057.9992.73 6090.2506.02 or 6090.2506.07	ROHDE and SCHWARZ GMBH and CO. KG, Germany	466 Addition № 1 to Certificate № 466	21.08.08 22.06.09	Special limitations Limitations have been changed
193	EK2000 HF receiver in the XK2000 series of the 1.5-30 MHz frequency range with GX2901S applicable software	6093.6002.02 6090.2506.02	ROHDE and SCHWARZ GMBH and CO. KG, Germany	467	21.08.08	Special limitations
194	EK895 HF and EK896 series EK890 receivers modifications in the 1.5-30 MGz frequency range with applicable software GX2902S	6057.8996.02 6057.8996.12 6057.8996.14 6057.8996.17 6057.8996.37 6057.8996.63 6038.2509.12 6038.2509.14 6038.2509.17 6038.2509.37 6092.4841.02	ROHDE and SCHWARZ GMBH and CO. KG, Germany	468	21.08.08	Special limitations
195	"Aurora" Autonomous Monopulse Secondary Radar with extended observation capacity in ADS-B 1090 ES mode with software	ТАЛМ.462611.006-01 ТАЛМ.462611.006 ПО	Open JSC "All-Russian Research Institute for Radio Equipment", Russia	474	04.12.08	
196	"Briolit-ШПМ" Long-Range Radio Communication 5 kW Transmitter (H3E, J3E, J7B, F1B, A1A signal radiation classes)	ЖЯ2.013.0982	Open JSC "Russian Institute for Powerful Radio Equipment", Russia	475	15.12.08	Special limitations
197	"KAMERTON" Voice Communication Switch System with Software	ЯКШГ.466 535.002 ЯКШГ.00009-01	"DECIMA", LLC, Russia	476	27.04.09	Special limitations
198	HX002 HF dipole antenna of 1.6-30 MHz frequency band with horizontal signal polarization and used with additional equipment: - KM451B1 or KM451B2 lattice mast - NX002F frequency extension module - GX007 junction box	0682.3010.24 4028.3351.02 or 028.3400.02 4017.9053.02 682.6010.02/03	"ROHDE & SCHWARZ", Gmbh & CO. KG, Germany	478	22.06.09	Special limitations
199	HX002A1 HF dipole antenna of 1.5-30 MHz frequency band with horizontal signal polarization and operated with additional equipment: - KM451B1 or KM451B2 lattice	4031.8009.02 4028.3351.02 or	"ROHDE & SCHWARZ", Gmbh & CO. KG, Germany	479	22.06.09	Special limitations

	mast - KM002A1 tiltable mast and KM002 Z1 mast - GX007 junction unit	4028.3400.02 4035.7359.02 & 4031.7001.02 4031.9005.02				
200	HE016 active antenna system of 1,5-30 MHz frequency band with horizontal and vertical signal polarization and IN115 power supply unit	4051/8504/02 4004.1707.02	“ROHDE & SCHWARZ”, GmbH & CO. KG, Germany	480	22.06.09	Special limitations
201	HA230 HF receiving antenna of 1,5 -30 MHz frequency band with horizontal and vertical signal polarization	0101.1176.02	“ROHDE & SCHWARZ”, GmbH & CO. KG, Germany	481	22.06.09	Special limitations
202	HL451 logarithmic-periodic HF antenna of 230 MHz frequency band in the receiver mode and 5-30 MHz in the transmitting mode and with horizontal and vertical signal polarization, used with additional equipment: - KM451B1 or KM451B2 lattice mast - GB130 control unit - RD130 rotating unit	0733.8507.02 4028.3351.02 or 4028.3400.02 4059.8755.02 4059.8503.02	“ROHDE & SCHWARZ”, GmbH & CO. KG, Germany	482	22.06.09	Special limitations
203	Controller console «ПД-1»	ЯКШГ.467848.001	Company with limited responsibility “Decima”, Russia	485	31.07.09	
204	Flight situation forecast program-apparatus complex for automated working place of air traffic flow planning/management controller with software under Windows XP Professional operational system	НГБК425270.001 НГБК00001-01	Radiocom-system Closed JSC, Russia	486	06.08.09	Special limitations
205	VHF (118-137 MHz, signal radiation classes A3E, A2D) transceiver including: - transmitter module - receiver module - power supply - housing with front panel with applicable software	XU42006130.2000.02 VU42006130.2217.02 EU42106130.2117.02 IN42406133.8522.02 KK42006130.2023.02 DS42006133.8697.07	ROHDE & SCHWARZ”, GmbH & CO. KG, Germany	487	01.09.09	Special limitations
206	VHF (118-137 MHz, signal radiation classes A3E, A2D) transceiver including: - transmitter module - receiver module - power supply - housing with front panel with applicable software	XU42006144.7400.02 VU42506144.7280.02 EU42506144.7274.02 IN42406133.8522.03 KK42006144.7268.02 DS42006144.7422.02	ROHDE & SCHWARZ”, GmbH & CO. KG, Germany	488	01.09.09	Special limitations
207	VHF (118-137 MHz, signal radiation classes A3E, A2D)	XU42006144.7300.02	ROHDE & SCHWARZ”,	489	01.09.09	Special limitations

	transceiver including: - transmitter module - receiver module - power supply - housing with front panel with applicable software	VU4250 6144.7280.02 EU4250 6144.7274.02 IN4240 6133.8522.02 KK4250 6144.7268.02  DS4200 6144.7522.02	Gmbh & CO. KG, Germany			
208	VHF (118-137 MHz, signal radiation classes A3E, A2D) transmitter including: - transmitter module - power supply - housing with front panel with applicable software	SU4200 6144.7500.02  VU4250 6144.7280.02 IN4240 6133.8522.02 KK4250 6144.7268.02  DS4200 6144.7522.02	ROHDE & SCHWARZ", Gmbh & CO. KG, Germany	490	01.09.09	Special limitations
209	VHF (118-137 MHz, signal radiation classes A3E, A2D) receiver including: - receiver module - power supply - housing with front panel with applicable software	EU4200C 6144.7800.02  EU4250 6144.7274.02 IN4210 6130.2175.02 KK4250C 6144.7816.02 DS4200 6144.7522.02	ROHDE & SCHWARZ", Gmbh & CO. KG, Germany	491	01.09.09	Special limitations
210	VEGA Equipment Complex for automation of airfield surveillance and monitoring, including: -equipment for initial and secondary processing of the radar information with MCBC 3,0 operational system and applicable program; - program-technical complexes with MCBC 3,0 operational system and correspondingly; - mounting set No. 1; - mounting sets No. 2	ЦИВР.466453.001  ЦИВР.468365.001, ФЛИР.80001-12, ЦИВР.00238-01-05;  ЦИВР.466216.001, ЦИВР.466216.001-01 -,ЦИВР.466216.001-04; ФЛИР.80001-12, ЦИВР.00238-01, ЦИВР.00238-01-01 - ЦИВР.00238-01-04; ЦИВР.466941.001 ЦИВР.466941.002	Open JSC "Lianozovo Electromechanical Plant", Russia	492	09.09.09	Special limitations
211	1090 ES "Sonar" ground receiver extended squitter station, including: • antenna system • cabinet with Linux 2.6 operating system and software, including: - ground receiver station software - registration and archiving program complex - air situation indication program complex	НКПГ.464335.002  НКПГ.46465.001 НКПГ.464335.003 НКПГ.10410-01  НКПГ.10411-01  НКПГ.10412-01  НКПГ.10413-01	"New Information Technologies in the Aviation", LLC, Russia	496	03.12.09	
212	Ground fixed satellite communication station "MOST-US"	СИКЛ.461621.000	Open JSC "Radiophizika", Russia	497	22.12.09	Special limitations
213	Ground fixed satellite communication station "MOST-AS"	СИКЛ.461621.002	Open JSC "Radiophizika", Russia	498	22.12.09	Special limitations

214	Ground fixed satellite communication station "MOST-AS"	СИКЛ.461621.007	Open JSC "Radiophizika", Russia	499	22.12.09	Special limitations
215	RX 2000H receivers with applicable software	БАИШ.464318.003-03 БАИШ.00329-90	Open JSC "Production Association "Azimut", Russia Open JSC "Russian Institute for Power Radiobuilding", Russia	500	23.12.09	Special limitations
216	ПТ-250 HF 250W automated transceiver	ИЯИПТ.464521.001	Open JSC "Russian Institute for Power Radiobuilding", Russia	502	16.02.10	Special limitations
217	Korinf compute-aided module for reception and display of the air traffic situation data with application software and Microsoft Windows 2000 Professional SP4 operating system	EACH.466451.001 EACH.01002-01	AEROSOFT-GA LLC, Russia	503	29.03.10	Special limitations
218	"Viuga PCT150" VHF radio station (118 – 137 MHz)	МАБЛ.464428.001-04	LOTES TM LLC, Russia	504	23.04.10	
219	"Viuga ПРД150" VHF radio transmitter (118 – 137 MHz)	МАБЛ.464115.003-04	LOTES TM LLC, Russia	505	23.04.10	
220	P3D-AS passive surveillance system with expanded surveillance functions in the ADS-B 1090 ES and ADS-B 1090 ES/NT modes	P3D-AS	ERA a.s., Czech Republic	506	06.05.10	Special limitations
221	SQB 02 ES0140A00403 vehicle location transmitter with SQB DD2 180.HEX applicable software	SQB 02 ES0140A00403	ERA a.s., Czech Republic	507	07.05.10	Special limitations

**Notes:** <sup>1)</sup> The full nomenclature of equipmen may be found in the relevant type certificate.

<sup>2)</sup> Certificates No 122 application covers PLATAN БАИШ.462112.016-11(Automatic direction finder – ADF). БАИШ.462112.016-11 approved type design modifications comprise replacement of "Baklan" radio station with "Yurok" radio receiver and new location of some of the components.