

# The Factories, Research and Design Establishments of the Soviet Defence Industry: a Guide

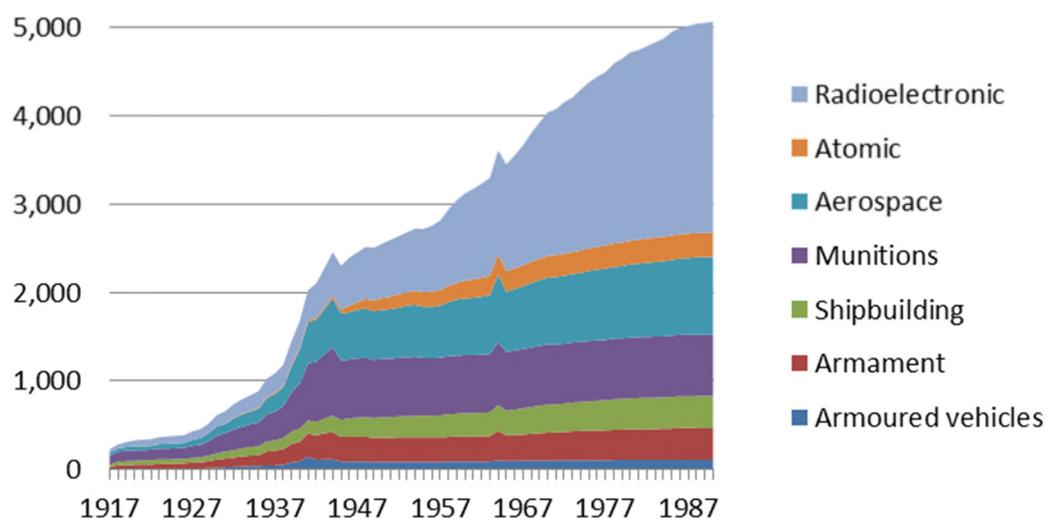
Version 21

Keith Dexter

and

Ivan Rodionov

**The number of Soviet defence plants by industry, 1917-1991**



THE UNIVERSITY OF  
**WARWICK**

Department of Economics

June 2020

# The Factories, Research and Design Establishments of the Soviet Defence Industry: a Guide

Version 21

## Preface

Version 21 is a list of the *Defence Factories, Research and Design Establishments of the USSR*; it also gives some data up to 2018.

The chart on our title page illustrates some of the many types of data that can be generated using the method proposed in the example on page 6 below.

Version 21 has 32,995 entries, a considerable increase on the 2,277 entries of version 2 (2000), the first edition to combine research and design establishments with factories.

Electronic sorting of this list allows individual sections, such as OKBs, to be retrieved if required and columns were added to enable the lists or numbers of different types of organisations existing in a particular year up to 1991 to be determined. This is particularly useful because of the many definitions of 'defence establishments' and it has also allowed us to include data on civil establishments that could be or have been converted, partially or in total, to defence work permanently or for a given period.

Differences between English and Russian grammar, particularly in syntax, make it difficult to choose the right phrase on which to conduct a search so the researcher is encouraged to try other options if the first attempt fails.

- Column 1 gives the number of the enterprise if it ever had one.
- Column 2 gives names of the enterprise during the period under investigation. Other names that it had at other times are also given in column 7. Please note we use the wording of the name used by the particular establishment and there may be differences in the spelling and also punctuation of some words used e.g. some use *elektromekhanicheskii* and others *elektro-mekhanicheskii*.
- Column 3 gives the name of the town or city and region of Russia or republic of USSR at the time covered with the district shown in brackets and later or former names if subsequently changed. Soviet controlled activities in other countries, such as Cuba and the German Democratic Republic are also included.
- Column 4 gives known subordinate or superior (if not clear from column 7) enterprises, such as design bureau, filial enterprise, *otdelenie* (branch), main plant etc
- Column 5 gives the main branch of defence production to which the enterprise was identified and coded as follows:

AERO	Aerospace (aircraft, missiles and space)
ARMOUR	Armoured vehicles
ARMS	Armament (artillery, infantry and naval)
ATOM	Atomic weapons
AUTO	Unarmoured vehicles and components
ELEC	Electronics, radio and military electrical items
FUEL	Strategically important fuels includes refineries but not coal
MUNS	Munitions (ammunition, explosives and chemical agents)
RAIL	Railway related items
SHIP	Naval ship building and repairs
OTHER	Other or not known

- Column 6 Column 6 gives the responsible government department: mainly people's commissariat (NK), governmental committees or ministry. In the period from 1918 to 1946 NKs were the main form of industry management; NKs were replaced with ministries in 1946 and then with committees in 1957-1965, and again with ministries from 1966..
- Column 7 gives **Other details** such as type of products, name and location changes, evacuation and other details. When available dates are shown for the creation of the establishment or instruction to change to military work by the various levels of government. The confusion caused by the war and the chaos of the evacuation of establishments make accurate dating of events difficult if not impossible.
- Column 8 **Director** lists the chief executive or director and/or chief designer of the enterprise during the period shown in Column 8.
- Column 9 **Date** shows the period over which the enterprise existed under the given name or number and at the stated location that is confirmed by documentary evidence
- Column 10 **Source** lists the sources of the information given in a code revealed on sheet 3 'Sources'
- Column 11 **Address** gives the addresses in Russian format i.e. Country (if not Russia), Postal code, City, Street name, Number
- Column 12 **Type** labels the main establishment types:

kb Design bureau, including KB, OKB, PKB, SKB, and TsKB

- nii Scientific Research & Design Institutes: NII, TsNII, and GSPI
- d Subordinated Organisations or Departments: *Otdely, Sektory*, Groups, Centres, and Laboratories
- t Test Sites includes poligon, stantsiya and NIP (*Nauchno-isspytatel'naya*)
- co Companies: NPO, NPP, NTO, Corporations, Concerns, Complexes and the independent Centres created in the 1990s.
- z *Zavod* (factory)

- Column 13 **Subordinated** labels those organisations which are filial (f) or *otdelenie* (o) or either (fo)

- Column 14 **Subtype** labels various subtypes:

- b Brigade
- c Centres
- co concern, company, complex or corporation
- g Group

GAZ State Union Aircraft Factory of the period 1921 to 1927

- gpi *Gos. proektnyi institut*
- kb *konstruktorskoe byuro*
- l Laboratory
- nii *Nauchno-issledovatel'skii institut*
- nip *Nauchno-isspytatel'nyi Poligon*
- npo *Nauchno-proizvodstvennoe ob"edinenie*
- npp *Nauchno-proizvodstvennoe predpriyatie*
- o *Otdel* (department)
- okb *Opytno-konstruktorskoe byuro*
- pkb *Proektno-konstruktorskoe byuro*
- s Sector
- skb *Spetsial'noe konstruktorskoe byuro*

tskb *Tsentral'noe konstruktorskoe byuro*

tsnii *Tsentral'nyi nauchno-issledovatel'skii institut*

- Column 15 **Industries not covered in column 5:**

am hang-glidern and paraplans

b bearings producer

bat batteries

cable cable producer

lp lacquers and paints

m map producer

met meteorology

mr aircraft, arms or automotive military repair factory or arsenal

pp paper and pulp

r civil repair plant

rub rubber goods producer

sc special ceramics

sch special chemicals

sf synthetic fibres

sg special glass

sm special metals

tyres tyre factory

v aviation veneer (plywood) factory of NKLes

Factories with no entry in columns 14 or 15 are either a GSZ (*Gosudarstvennyi Soyuznyi zavod*) or have not yet been typed.

- Column 16 indicates **Series, Wartime, Doubt** and **Post Soviet start up**.

a Indicates there is some doubt that the factory was a defence-related plant or is still in existence. Experience of the Great Patriotic War has shown that almost every establishment was used for some form of military work and this has persuaded us to include many for their potential or future military use; such establishments either have an 'a'

or if there is no evidence, only our judgement, the cell in this column is blank.

- w Indicates on military work only during the Great Patriotic War 1941-5. Note we use the exact year but use the interval 1941-5 if our only information is that the enterprise was involved in military work during the war
  - q Indicates formed in 1991 or later.
  - s Indicates a 'series' production factory or 'specialized' establishment where the enterprise was almost exclusively on military work between the dates quoted in the following columns.
- Columns 17 **Start** and 18 **Finish** give the dates between which the enterprise was on **military work**. The **Start** dates given in Column 7 can refer to instructions from several levels of government to create the establishment. The **Start** date used here is for the instruction issued by the appropriate NK or Ministry for its creation or its change to military work. The **Finish** date is when the order was given for military work to stop or, if that is not known, when it actually stopped.
  - Columns 19 **Start Again** and 20 **Second Finish** give the dates between which an enterprise was on military work for a second time, whenever possible as indicated by the instruction from the NK or Ministry. 1991 is the last date used
  - Column 21 **Double count** shows a 'd' where an establishment has changed its name or location in the same year. Please note both original and double have a 'd'. If no dates are shown in columns 17 to 20 inclusively it indicates the possibility the entry may be duplicated under a different designation or the authors are not sure if the respective enterprise was involved in defence-related activity.

We have included all numbered plants on defence work with archival references but many will not be a GSZ. Many NKs had their own numbered establishments.

Some of the entries existed in paper plans but may never have been commissioned. Many plants carried a number only during World War II and others only until the mid-1960s.

We believe that 90 per cent of the numbered plants listed without location are already included in the unnumbered list as named factories of a later period. So far, however, we have been unable to match them.

The objective in supplying columns 17 to 21 is to allow lists or numbers of enterprises of different types operating on or between dates to be calculated.

**Example:** one method of determining the number of TsNII on defence products between 1929 and 1936:

- Make a copy of the main database and use this.

- Extract all TsNIIs using Sort or AutoFilter on col. 14.
- From the above extract, using Sort or AutoFilter on column 16, extract all 's' (specialized) entries.
- On the remnant, sort on column 3, then make a judgement on all entries with 'd' in column 16 and delete any apparent duplicates in the same city.
- On the remnant, sort Column 17 in ascending order and delete anything greater than 1936; then look at the last numbers of lines in each year; on a new sheet fill in two columns, the first the year, the second the number of TsNIIs therein: thus:

1929 1 (note: created 1918 survived till 1929 and later till 1936)  
 1930 2  
 1931 6  
 1932 6  
 1933 7  
 1934 7  
 1935 7  
 1936 9

- On column 18 of the previous remnant sort what was left in ascending order and fill in the next column of the 'number of TsNIIs sheet' with the number of TsNIIs that have left defence work and deduct column 3 from 2 to arrive at the number of TsNIIs in the given years in column 4 (in bold font):

1929 1 0 **1**  
 1930 2 0 **2**  
 1931 6 0 **6**  
 1932 6 0 **6**  
 1933 7 0 **7**  
 1934 7 0 **7**  
 1935 7 0 **7**  
 1936 9 1 **8**

A similar operation can be applied to any type of enterprise or to all of them for any range of years between 1918 and 2003.

If an enterprise was closed and restarted or transferred to another location, columns 19, 20 and 21 must also be involved.

You should be careful in this analysis to exclude double counting in the cases when an enterprise changed location or name within the same year. These are denoted by a 'd' in column 21 for both original and double.

Please note that some internet sources may no longer be active.

## Communications

We welcome comments and corrections, addressed to [irodiono@mail.ru](mailto:irodiono@mail.ru).

We also welcome additional information, which must be fully referenced if we are to incorporate it into future editions.

## The Authors

**Keith Dexter**, BSc, is an independent researcher and writer and a past associate fellow of the Department of Economics at the University of Warwick

**Ivan Rodionov**, PhD, has professorships at Moscow State University Higher School of Economics and the Russian State Humanitarian University and is an independent researcher and writer and the author of *Rodionov's Chronology*, a comprehensive annual survey (in Russian) of Russian and Soviet aviation from 1916 to 1946. This work is to be found at:

<http://www2.warwick.ac.uk/fac/soc/economics/staff/mharrison/aviaprom>.

## Acknowledgements

The authors wish to express their gratitude in particular to the late Marina Korzina whose contribution to this work has been immense: of the 3,124 archival references she supplied all but 9. Thanks also to Vasil Levchik for his help in searching the internet for relevant information and to Boris Davydov and Piotr Butowski. All errors of fact, interpretation, and omission, that are sure to be present in a work of this nature are the responsibility of the authors alone.