

**Minutes of meeting**

To

ROSTEC

S. Galperin

S. Kolpakov

V. Sadkov

A. Sukharev

E. Kakaeva

A. Moskvina

S. Kaipov (part time)

V. Kulakov (part time)

From

Alexander Gaponiuk

(International Cooperation YIW)

T +7 495 258 04 95

E alexander.gaponiuk@airbus.com

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AIRBUS

A Gaponiuk

B Hales

M Sharma

D Cavazzini

D Gervais

Subject of meeting

ATR FAL RUSSIA

JV ROSTEC ATR

Date of meeting

27-28 November

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Actions

In the framework of the MoU signed on 28 August 2013, Airbus and Rostec met between the 27<sup>th</sup> and 28<sup>th</sup> November 2013 in Moscow. The working groups discussed the topics described hereafter as a part of the Feasibility study and agreed to submit the results of these discussion to their respective governing bodies for review.

The meeting was dedicated to review of industrial feasibility study update due to significant impact of new assumptions agreed by both sides in a meeting on 20<sup>th</sup> November in London as follows

- the FAL shall be sized for maximum rate 24 A/C p.a. working in two shifts
- industrial scenario 3 ATR 42 in 2014, ramp-up plan foresee 6-8 A/C in 2015, 16 A/C in 2016, 24 A/C in 2017

**Facility lay-out**

Optimised FAL layout plan Rostec turn – key solution prepared based on Airbus proposals, reviewed and agreed jointly (see slide 3 Annex presentation) with following Airbus recommendations:

- Swap paint shop with B1 to be coherent with industrial flow / ease future development
- Flight line office and facilities for test necessary in parking area
- One single position for A/C delivery may be a bottleneck. Use of special mission position recommended as back-up





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- Specific crane needed to move wing MCA from logistic area to FAL A

**Actions**

According to the current Rostec plan agreed with construction company selected FAL will be set up in three stages:

- Separate building to be in operation in July 2014 to be used for green A/C delivery and FAL B. Later this building will be used for special mission A/C (see slide 3 Annex presentation)
- Main FAL building will be in operation by end of 1<sup>st</sup> Q 2015
- Painting shop and delivery centre will be in operation by end 2015

**Capex/NRCs**

Capex work-breakdown structure and jigs and tools NRCs were reviewed in details and updated for rate 24 A/C p.a.

Rostec inputs received from construction companies and potential local sub-contracts of open market items from jigs and tools list were taken into consideration.

ROSTEC committed to build the full plant for about 53 M\$ (refer to Annex presentation). Airbus Industrial team revised Capex & NRCs figures accordingly for a total of ~93.4 M\$

**Final figures for BC**

- Building and Land: 61.9M\$ (incl. ~6M\$ provisions)
- Jigs and tools: 31.5M\$

**Sensitivity analysis**

Due to the significant impact of new assumptions have on the study itself and the short timeframe to review the work done, Airbus presented sensitivity parametric study for Rate 24 A/C is done based on the Rate 10/20 results. An industrial solution based on 2 working shifts will be used from Phase 1. Supply chain capability beyond 100 ship set per year and associated cost are not part of the study (refer to basic assumptions in Annex presentation)

After the optimization achieved for both facility lay-out and Capex/NRC no further significant impact predicted.

The headcount (FAL) planed for calculation purposes based on 10 a/c rate and it is redundant for 24 a/c rate and can be used only for calculating the pessimistic BC scenario. Further the headcount need to be optimized in order to reduce the downtime of staff, which is on rate 10 on the verge of



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around 40 per cent of working time.

**Actions**

The assumption that 100% of BCs and WCs will be trained during 6 months requires further understanding of staff profile and compensation policy to reduce additional training costs.

**Expected JV profitability parameter**

Rostec provided the key financial "target" parameters of the BC as follows:

- Discounted Payback period (BEP): should not be more than 9 years
- IRR of the JV BC: must not be less than 15%

**Transport and logistics**

- Airbus presented the results of the updated logistics and transport study based on the agreed assumption that the kitting in Toulouse and following Hybrid solution (Air/Sea/Road)
  - 3 winter months 2 Antonov 124
  - 9 months sea/road

Both side agreed to keep the proposed Hybrid solution (Air/Sea/Road) as a baseline for BC.

- Further opportunity for potential saving of 415 K\$ per ship-set (RC) is identified to ship wing & fuselage in one single Antonov 124. This option will require a special detailed study comprising
  - Technical/Engineering validation
  - Evaluation of associated NRC (specific jigs required)
  - Estimation of lead-time for option implementation
- Opportunity identified to further reduce up to 20% vs. current figures sea/road solution costs
  - Detailed study by forwarder required

Both studies should be completed before FAL A operational start.

Final conclusion of the meeting: Both sides agreed that industrial feasibility study is completed and all industrial inputs have been provided to the financial group in order to prepare the business case





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**Business case**

**Actions**

Following the request from Rostec, the business case template to run the business plan will be provided by Airbus to Rostec on 29<sup>th</sup> November 2013. This business case template includes most of the agreed industrial data inputs. Rostec has also requested to provide the other necessary data like MCAs transfer price, selling price, by 2<sup>nd</sup> December 2013, end of the day.

Both sides agreed to hold the next meeting to review the business case, profitability targets and legal issues on 4<sup>th</sup>-5<sup>th</sup> December in Paris.

Signed in Moscow on 28<sup>th</sup> November in two originals.

For and on behalf of:

For and on behalf of:

**AIRBUS SAS**

A. Gaponioug

28.11.13

**ROSTEC**

S Galperin

28.11.13