

Group Research & Development Centre,  
British-American Tobacco Co. Ltd.,  
SOUTHAMPTON.

PROGRAMME OF WORK

RESEARCH

Issued by: C.I. Ayres

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File 38A

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BIOLOGICAL RESEARCH & INFORMATION

11.00.00

	<u>Review or Target Date</u>	<u>Work by</u>	
<u>11.01.00</u> <u>Inhalation Toxicology</u>			
11.01.09	Pilot long-term inhalation study	Sept. 1978	GAR/RB/LVW/GS
11.01.11	Organ weight study (restricted diet)	Sept. 1978	LVW/GS
11.01.12	Smoke exposure/feeding study	Apr. 1978	LVW
11.01.13	Toxicity of smoke from cigarettes with different filters	Apr. 1978	GAR/WGDL/GS/HGH
11.01.14	<i>Specific Activity Study</i>	<i>Oct 1978</i>	<i>WGDL/GAR/GS</i>
<u>11.02.00</u> <u>Biochemistry</u>			
11.02.03	Mucus production	Rep. Apr. 1978	GAR
11.02.04	Cathepsin D in lung and PAMs	May 1978	PSS
11.02.05	Mucus production, <del>secretion</del> secretion	July 1978	GAR
11.02.05	<i>Acute Biochemical/Physiological</i>	<i>Aug 1978</i>	<i>GAR</i>
<u>11.03.00</u> <u>Smoke Dosimetry</u>			
11.03.02	Long term dosimetry	Apr. 1978	WGDL/LVW
11.03.03	Long-term dosimetry - 2nd study	Sept. 1978	WGDL/GAR
11.03.04	Matched TPM dose	Apr. 1978	WGDL
11.03.06	<i>Water uptake, potential of smoke and lung deposition</i>	<i>Aug 1978</i>	<i>RBR</i>
<u>11.04.00</u> <u>Other Studies</u>			
11.04.02	Review of methods of statistical analysis of JANUS mouse skin painting experiment	2nd Report July 1978	EBW
11.04.06	Amendment to JANUS System (Promotion experiments)	Apr. 1978	RBD/BMW
11.04.07	Special toxicity studies - Phase II	Rep. Apr. 1978	RB/WGDL
11.04.08	Design of cigarettes of low biological activity	Apr. 1978	PJN/SRE
11.04.10	Methods for toxicity studies - Further work	May 1978	LVW/PSS/WGDL
11.04.11	Analysis of B8/6 cigarettes	Apr. 1978	HGH/JWPP
11.04.12	<i>Activity Monitor</i>	<i>July 1978</i>	<i>JLB</i>

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	<u>Review or Target Date</u>	<u>Work by</u>
<u>11.05.00</u> <u>Battelle, Frankfurt</u>		
11.05.01 Long term skin painting Experiment B10 Experiment B11	Draft Report Draft Report	
<u>11.06.00</u> <u>BIBRA</u>		
11.06.01		
<u>11.07.00</u> <u>Wickham Research Laboratory</u>		
11.07.01 Promotion skin painting B32	Analysis	
11.07.02		
<u>11.09.00</u> <u>Huntingdon Research Centre</u>		
11.09.02 Long term experiment B14	In Progress	
11.09.03 Long term experiment B15	In Progress	
11.09.04		
<u>11.10.00</u> <u>Brune Laboratory, Hamburg (Sebaceous Gland Tests)</u>		
11.10.01 Extraction of CRS and WTS	Analysis	
11.10.02 Extraction in PRT and Stem processing	In progress	
11.10.03		

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PRODUCT RESEARCH

12.00.00

		<u>Review or Target Date</u>	<u>Work by</u>
<u>12.01.00</u>			
<u>Sensory &amp; Preference Research</u>			
12.01.01	Relation between GLC scans and taste and flavour	May 1978	EBW/GOB/HFDD
12.01.02	Effect of blending on smoke taste	Apr. 1978	RAC/TH
12.01.09	Objective characterisation of cigarette pack aroma - Further work	Rep. Apr. 1978	JDG/EA
12.01.12	Assessment of sidestream aroma	Apr. 1978	CCG
12.01.13	O/WP profiles of individual grades (Project BROCHURE) - Further work	Rep. Apr. 1978	GOB/RGH
12.01.14	Effect of filter material, P.D., and plasticiser on taste and flavour	Rep. Apr. 1978	JDG/JDB
12.01.15	Examination of T13 flavour	Apr. 1978	JGU/EA <i>RET</i>
12.01.16	Cigarettes with low or zero visible sidestream	Apr. 1978	CCG
12.01.17	Enhancement of tobacco flavour in cigarette smoke	May 1978	SRM
12.01.18	Flavour enhancement of cigarette smoke from low delivery, highly ventilated cigarettes	May 1978	JDG
12.01.19	Matching of individual tobacco grades by mixtures	Rep. Apr. 1978	GAF/TH
12.01.20	Tobacco flowers as a source of flavour material	Apr. 1978	SRM
12.01.21	Subjective evaluation of odour and taint potential	Apr. 1978	NF/RPF
12.01.22	Repertory grid techniques: I. Pack design	Apr. 1978	RPF
12.01.23	Agrinion tobacco flavour	June 1978	SRM
12.01.24	Effect of ventilation on taste and flavour	July 1978	JDG/JDB
12.01.25			

12.02.00

Cigarette Design Studies

12.02.04	N-nitrosornicotine in tobacco - Further work	May 1978	JDG
12.02.07	Variable porosity paper evaluation - Further work	Apr. 1978	RRB
12.02.15	Cigarettes containing G-13 tobacco	Rep. Apr. 1978	HGH/RWH
12.02.18	Gas concentration inside the coal during the smoking cycle	Rep. Apr. 1978	RRB
12.02.19	Nicotine extraction from smoke aerosol	Rep. June 1978	RBR
12.02.20	Examination of cigarette papers and plug wraps	May 1978	FJD
12.02.21	Flow of gases through cigarettes	Apr. 1978	RRB
12.02.22	Smoking of cigarettes in Oxygen-18	Rep. June 1978	RRB
12.02.23	Cigarette paper with and without titanium oxide	Apr. 1978	FJD
12.02.24	Cigarettes with zone-perforated tipping	May 1978	FJD/TH
12.02.25	Cigarettes with mechanical perforated tipping and porous plug wrap	Apr. 1978	FJD
12.02.26	Variable density cigarettes	Apr. 1978	DBN/RRB
12.02.27	Degree of ventilation of cigarettes	Rep. Apr. 1978	DC
12.02.28	Cigarettes with micro-perforated tipping (Malauene)	May 1978	FJD
12.02.29	Effect of paper porosity on smoke deliveries	May 1978	FJD
12.02.30	Improvement of taste/flavour P. ...	July 1978	TH

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		<u>Review or Target Date</u>	<u>Work by</u>
<b>12.03.00</b>			
<u>Filters</u>			
12.03.04	Embossed end filters	May 1978	JWPP/JAL
12.03.11	Production of pilot scale batches of coated carbon	Rep. May 1978	DJM/JWPP/TH
12.03.13	Adsorbents coated with polyvinyl alcohol	Apr. 1978	JWPP
12.03.16	Filtration of nitric oxide from cigarette smoke- Further work	May 1978	DAM
12.03.17	Triple filters containing mixed adsorbents	Apr. 1978	JWPP
12.03.19	Filters made from oil sorbent material	Apr. 1978	HGH
12.03.20	<i>Filtration of NO by Nitrocell.</i>	<i>June 1978</i>	<i>DAM</i>
<b>12.04.00</b>			
<u>Development of Techniques</u>			
<del>12.04.02</del>	<del>A method for <math>\alpha, \beta</math> unsaturated compounds</del>	<del>Rep. Apr. 1978</del>	<del>HFDD</del>
12.04.04	Development of a GC method for individual tobacco sugar analysis	Rep. Apr. 1978	RAC/GOB/TGM
12.04.05	HPLC method for casings	Rep. Apr. 1978	CWA
12.04.06	Growth of fungi on tobacco - method development	Apr. 1978	TGM
12.04.12	Measurements of TPM in inhaled and exhaled smoke - Further work	Apr. 1978	RTJ
12.04.14	Semi-conductor detectors for NO analysis	June 1978	AEY/HFDD
12.04.19	Further developments of an instrument for measuring the air permeability of paper	Apr. 1978	RRB/RGB
12.04.20	O/WP - Laboratories cross check	May 1978	EBW/CWA/GOB
12.04.22	Automatic weighing system for Cambridge filter pads	Rep. Apr. 1978	AWC/AGB
12.04.24	Nitrosamine detector	Apr. 1978	HFDD/CCG
12.04.25	Measurement of ventilation in lit cigarettes	May 1978	ADM
12.04.26			
<b>12.05.00</b>			
<u>Brand &amp; Market Studies</u>			
12.05.01	Europe leaders	Rep. June 1978	DEC
12.05.07	Sampling for league tables	Rep. Apr. 1978	DEC/TH
12.05.08			

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		<u>Review or Target Date</u>	<u>Work by</u>
<u>12.06.00</u> <u>Microbiology</u>			
12.06.01	Effect of heat on microflora of tobacco - Further work	May 1978	TGM/PCS
12.06.04	Enumeration and characterisation of <i>E. coli</i>	May 1978	PCS
12.06.05	Microbial modification of terpenes	Apr. 1978	TGM
12.06.06	Tobacco modification by microfungi	May 1978	TGM
12.06.07			

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Contracts

12.07.03	Interaction of aerosols and aqueous surfaces (Bristol University)	<del>Apr.</del> <sup>June</sup> 1978	RBR/KDK
12.07.05	Nicotine analogues	<del>Apr.</del> <sup>July</sup> 1978	KDK
12.07.06			

12.08.00  
Tobacco Growing

12.08.05	The effect of manganese fertilisation on CO delivery from Virginia tobacco	May 1978	RC
12.08.07			

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SMOKER RESEARCH

13.00.00

		<u>Review or Target Date</u>	<u>Work by</u>
13.01.00			
<u>Benefits of Smoking</u>			
13.01.03	$\alpha$ waves - Further studies	<i>Oct</i> <del>Apr.</del> 1978	AKC
13.01.06	EEG studies - Second series	<i>July</i> <del>Apr.</del> 1978	AKC
13.01.07	$\alpha$ wave bio-feedback	<i>May</i> July 1978	AKC
13.01.11	Collaborative study on smoking behaviour with M.A.H. Russell	<i>July</i> Rep. <del>May</del> 1978	JRC/AKC
13.01.12	Collaborative study on smoking behaviour Phase II (M.A.H. Russell)	July 1978	RET/DC
13.01.13	Butt analysis (external smoking behavioural studies)	<i>June July</i> Rep. <del>Apr.</del> 1978	JRC/AKC
13.01.14	Survey of smoking patterns in G.R. & D.C.	<del>June</del> 1978	DC
13.01.17		<i>Sept</i>	

13.02.00  
Contracts

13.02.01	EEG (Chronic studies) (St. Bartholomew's Hospital, London)	<i>July</i> <i>May</i> <del>Apr.</del> 1978	MO/AKC
13.02.03			

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PROCESS & ENGINEERING RESEARCH

14.00.00

		<u>Review or Target Date</u>	<u>Work by</u>
14.01.00			
<u>Tobacco Processing</u>			
14.01.03	A fluidised bed WTS process for CRS - Further work	Apr. 1978	DBN
14.01.07	Stem processing as WTS and PRT - Further work	Apr. 1978	RWH/RLP
14.01.08	Moisture measurement using microwave techniques	May 1978	AEY
14.01.09	De-fibrated stem as a substitute for WTS	June 1978	RWH/DJM
14.01.10	Investigation of flavour application methods	Apr. 1978	DBN
14.01.11	Heat treatment of cased Burley strip	May 1978	DBN/RAC
14.01.12	Technological forecast	Apr. 1978	KDK
14.01.13	Evaluation of tobacco treated by the DIET process - Further work	Apr. 1978	RWH
14.01.14	Handbook of primary process instrumentation	Apr. 1978	AEY
14.01.15	Factory tests of Dickinson/B.A.T Weighing Conveyor	May 1978	AEY
14.01.16	Comparison of G-13 tobacco with DIET treated tobacco - Further work	Apr. 1978	RWH
14.01.17	Microscopic examination of tobacco	June 1978	RC
14.01.18			
14.02.00			
<u>Cigarette Manufacture</u>			
* 14.02.01	Mark 8 MCM performance investigation using data-logger	Apr. 1978	RGB
14.02.02	Machine fault diagnosis - Further work	June 1978	RGB
14.02.03	X-ray method for stem etc. in cigarettes	June 1978	AWC
14.02.07	Assembly of filter cigarettes with porous tipping	Apr. 1978	JKM/NF
14.02.08	Monitoring cigarette ventilation	June 1978	AWC
14.02.09	Porous and perforated plug wrap	Apr. 1978	JKM
14.02.10			
14.03.00			
<u>Filter Manufacture</u>			
14.03.01	Measurement of filter rod hardness	May 1978	JAL
14.03.02	Grooved filter	Rep. Apr. 1978	JAL
14.03.03	Dumbell filter	Rep. Apr. 1978	JAL
14.03.07	Line film applicator used on porous tipping materials	Rep. May 1978	JAL
14.03.08	Filtrona circumference gauge - NWA filter	July 1978	AWC/JAL
14.03.09	Measurements of the physical characteristics of NWA filter rods	May 1978	AWC/JAL
14.03.10	Investigation of manufacture of True filter	June 1978	JAL
14.03.11	Application of microwave heating to filter rod manufacture	June 1978	JAL
14.03.12			

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14.04.00  
Packaging

14.04.01 Pack design studies - Further work  
14.04.02 HLP performance investigation - data logging  
14.04.03

Review or  
Target Date

Work by

Rep. May 1978  
Apr. 1978

NF/RBD  
RGB

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NEW SMOKING MATERIALS RESEARCH

15.00.00

		<u>Review or Target Date</u>	<u>Work by</u>
15.01.00			
<u>Non-Tobacco Smoking Materials</u>			
15.01.07	NCF - Ash improvement	Rep. Apr. 1978	TWT
15.01.12	Production of BATFLAKE on drum drier	June 1978	DJM
15.01.13			
15.02.00			
<u>Tobacco-based Smoking Materials</u>			
15.02.04	PRT-71 - Product specification and test methods	Apr. 1978	RLP
15.02.05	Reduction of CO delivery of PRT by the use of additives - Further work	May 1978	RLP
15.02.06	O/WP profiles of production RTS	Rep. Apr. 1978	CWA
15.02.09	RTS plant cost reduction study	Rep. June 1978	DJM
15.02.10	Non-combustible tobacco	Apr. 1978	TWT
15.02.12	Effect of water extraction and heat on smoke irritation	Apr. 1978	DAJ/TGH/RLP
15.02.13	Development of a fibre mat process for PRT	June 1978	DJM
15.02.14	Extraction of lamina (strips)	Apr. 1978	RWH/BCH
15.02.16	PRT examination of 1975/76 Canadian whole plant tobaccos	May 1978	RLP
15.02.17	Reduced density AST	June 1978	RWH
15.02.18			

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