### NEWS RELEASE 2001 High School Mathematical Modeling Contest

The Consortium for Mathematics and Its Applications (COMAP) is pleased to announce the results of the Third Annual High School Mathematical Contest in Modeling (HiMCM). A total of 160 teams competed from 61 schools. All HiMCM teams, with up to four students each, worked at their own schools during a designated 24-hour period from January 12 to 22, 2001. Each high school team chose one of the two modeling problems offered and then constructed their solutions.

Problem A offered the dissimilar designs of five different airport terminals concurrently operating throughout the world. The students were asked to develop a mathematical model for airport design and operation, and then use it to argue for the optimality of that specific design.

Problem B asked students to help the Forest Service allocate resources to fight wildfires. Specifics were offered about a particular area, including details about the dry season, the prevailing winds, and the number of units to be deployed. Entrants were asked to determine the best distribution of the fire-fighting units available within this wilderness area.

### **National Outstanding Teams**

Arkansas School for Math and Science, Hot Springs, AR Chesterfield County Math & Science High School, Midlothian, VA (2 teams)

Governor's School for Government and International Studies, Richmond, VA

Hong Kong International School, Hong Kong

Hunter College High School, New York, NY Phillips Exeter Academy, Exeter, NH Illinois Mathematics and Science Academy, Aurora, IL Sidwell Friends School, Washington, D.C. Westminster Schools, Atlanta, GA (2 teams)

#### **Regional Outstanding Teams**

Albany High School (CA), two teams from California Academy of Math and Science (CA), The Charter School of Wilmington (DE), Cumberland Valley High School (PA), Frontier Regional High School (MA), Gresham High School (OR), Hempstead High School (IA), three teams from Massachusetts Academy of Math and Science (MA), Mississippi School for Math and Science (MS), and Mills E. Goodwin High School (VA).

#### 2001 HIMCM STATISTICS

Problem	National	%	Regional	%	Meritorious	%	Honorable	%	Successful	%	TOTAL	
	Outstanding		Outstanding				Mention		Participant			
A	8	9%	6	7%	22	25%	37	41%	16	18%	89	
В	3	4%	7	10%	21	29%	26	36%	14	20%	71	
Total	11	7%	13	8%	43	27%	63	39%	30	19%	160	

All schools are to be commended for their efforts. The judges were impressed with all the teams' creativity and ingenuity in mathematical modeling, and in their ability to explain their strategies and problem-solving techniques in clear terms. Each participant is a true winner. A complete Results Report, listing all teams by designation, can be found at http://www.comap.com/highschool/contests/himcm. For additional contest information, contact Clarice Callahan, Contest Coordinator, at 781-862-7878x37 or by email at c.callahan@mail.comap.com



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The Contest Director is William P. Fox, Chairman of the Department of Mathematics, Francis Marion University. Project Directors include John A. Dossey, Distinguished University Professor of Mathematics Emeritus, Illinois State University, and Frank Giordano, COMAP, Inc.

# 2001 High School Mathematical Contest in Modeling (HiMCM) Final Results Report

Institution	City	State	Adv	isor Con	trol #	Prob	lem Designation
Chesterfield County Math & Science H.S.	Midlothian	VA	Diane	Leighty	23415	A	National Outstanding
Chesterfield County Math & Science H.S.	Midlothian	VA	Diane	Leighty	23416	A	National Outstanding
Hong Kong International School	Tai Tam		William	Stork	23531	A	National Outstanding
Hunter College High School	New York	NY	David	Hankin	23619	A	National Outstanding
Phillips Exeter Academy	Exeter	NH	Joanie	Zia	23667	A	National Outstanding
The Governor's School for Gov't & Int'l Studies	Richmond	VA	Crista	Hamilton	23461	A	National Outstanding
Westminster Schools	Atlanta	GA	Landy	Godbold	23456	A	National Outstanding
Westminster Schools	Atlanta	GA	Landy	Godbold	23457	A	National Outstanding
Albany High School	Albany	CA	Rich	Lohman	23616	A	Regional Outstanding
Gresham High School	Gresham	OR	Kay	Francis	23427	A	Regional Outstanding
Hempstead High School	Dubuque	IA	Karen	Weires	23548	A	Regional Outstanding
MA Academy of Mathematics and Science	Worcester	MA	Jim	Barys	23643	A	Regional Outstanding
MA Academy of Mathematics and Science	Worcester	MA	Jim	Barys	23645	A	Regional Outstanding
MS School for Math & Science	Columbus	MS	Claudia	Carter	23458	A	Regional Outstanding
Boardman High School	Youngstown	ОН	Roger	Patterson	23523	A	Meritorious
Brookline High School	Brookline	MA	Ryota	Matsuura	23601	A	Meritorious
California Academy of Mathematics and Science	Carson	CA	Lisa	Usher	23561	A	Meritorious
California Academy of Mathematics and Science	Carson	CA	Lisa	Usher	23563	A	Meritorious
California Academy of Mathematics and Science	Carson	CA	Lisa	Usher	23569	A	Meritorious
Charlotte Country Day School	Charlotte	NC	Sheila	McGrail	23520	A	Meritorious
Kentlake High School	Kent	WA	Robin	Washam	23429	A	Meritorious
Logan High School	Logan	UT	Fawn	Groves	23538	A	Meritorious
MA Academy of Mathematics and Science	Worcester	MA	Jim	Barys	23638	A	Meritorious
MA Academy of Mathematics and Science	Worcester	MA	Jim	Barys	23644	A	Meritorious
Madison East High School	Madison	WI	Cynthia	Chin	23421	A	Meritorious
Maine School of Science and Mathematics	Limestone	ME	Duncan	Innes	23496	A	Meritorious
McClintock High School	Tempe	AZ	James	Gibson	23512	A	Meritorious
Mills E. Godwin High School	Richmond	VA	Ann	Sebrell	23505	A	Meritorious
Milton High School	Milton	MA	Sharon	Hessney	23451	A	Meritorious
Paul D. Schreiber High School	Port Washington	NY	Elaine	Labrocca	23528	A	Meritorious
Sidwell Friends School	Washington	DC	Eric	Steadman	23628	A	Meritorious
Skowhegan Area High School	Skowhegan	ME	Alan	Campbell	23670	A	Meritorious
The Governor's School for Gov't & Int'l Studies	Richmond	VA	Crista	Hamilton	23462	A	Meritorious
The Governor's School for Gov't & Int'l Studies	Richmond	VA	Crista	Hamilton	23465	A	Meritorious
The Governor's School for Gov't & Int'l Studies	Richmond	VA	Crista	Hamilton	23671	A	Meritorious
Westminster Schools	Atlanta	GA	Landy	Godbold	23511	A	Meritorious
Albany High School	Albany	CA	Elisabeth	Klein	23615	A	Honorable Mention
Arkansas School for Mathematics & Sciences	Hot Springs	AR	Bruce	Turkal	23499	A	Honorable Mention
Brookline High School	Brookline	MA	Ryota	Matsuura	23599	A	Honorable Mention
Brookline High School	Brookline	MA	Ryota	Matsuura	23600	A	Honorable Mention
Edwin O. Smith High School	Storrs	CT	George	Parker	23590	A	Honorable Mention
Evanston Township High School	Evanston	IL	John	Benson	23425	A	Honorable Mention
Evanston Township High School	Evanston	IL	John	Benson	23426	A	Honorable Mention
Germantown Academy	Fort Washington	PA	Ruth	Carver	23483	A	Honorable Mention
Germantown Academy	Fort Washington	PA	Ruth	Carver	23485	A	Honorable Mention

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Institution	City	State	Advi	sor Cont	rol#	Prob	lem Designation
Germantown Academy	Fort Washington	PA	Margaret	Cook	23704		Honorable Mention
Germantown Academy	Fort Washington	PA	Margaret	Cook	23705	A	Honorable Mention
Germantown Academy	Fort washington	PA	Paul	Henry	23698	A	Honorable Mention
Germantown Academy	Fort Washington	PA	John	Millar	23696	A	Honorable Mention
Goldberg Homeschool	Boulder	CO	David	Goldberg	23611	A	Honorable Mention
Hathaway Brown School	Shaker Heights	ОН	Linda	Wohlever	23442	A	Honorable Mention
Hathaway Brown School	Shaker Heights	ОН	Linda	Wohlever	23682	A	Honorable Mention
Horace Greeley High School	Chappaqua	NY	Paul	Bianchi	23524	A	Honorable Mention
Illinois Mathematics and Science Academy	Aurora	IL	Ronald	Vavrinek	23423	A	Honorable Mention
Lancaster High School	Lancaster	NY	Barbara	Mocarski	23414	A	Honorable Mention
Logan High School	Logan	UT	Fawn	Groves	23539	A	Honorable Mention
MA Academy of Mathematics and Science	Worcester	MA	Jim	Barys	23640	A	Honorable Mention
MA Academy of Mathematics and Science	Worcester	MA	Jim	Barys	23648	A	Honorable Mention
Madison East High School	Madison	WI	Cynthia	Chin	23422	A	Honorable Mention
Madison East High School	Madison	WI	Cynthia	Chin	23445	A	Honorable Mention
Milton High School	Milton	MA	Sharon	Hessney	23430	A	Honorable Mention
Milton High School	Milton	MA	Sharon	Hessney	23452	A	Honorable Mention
MS School for Math & Science	Columbus	MS	Claudia	Carter	23459	A	Honorable Mention
Mt. St. Joseph Academy	Flourtown	PA	Mary	Butler	23534	A	Honorable Mention
Oceanside High School	Oceanside	NY	Martin	Rudolph	23469	A	Honorable Mention
Oceanside High School	Oceanside	NY	Martin	Rudolph	23470	A	Honorable Mention
Oceanside High School	Oceanside	NY	Martin	Rudolph	23472	A	Honorable Mention
Prescott High School	Prescott	AZ	Sherri	Baca	23634	A	Honorable Mention
Prior Lake Senior High School	Prior Lake	MN	Katy	Hallberg	23438	A	Honorable Mention
South Forsyth High School	Cumming	GA	Linda	Wright	23455	A	Honorable Mention
University High School	Los Angeles	CA	Robert	Baker	23584	A	Honorable Mention
Varina High School	Richmond	VA	Skip	Tyler	23612	A	Honorable Mention
Walter Payton Math Science	Chicago	IL	Douglas	O'Roark	23509	A	Honorable Mention
California Academy of Mathematics and Science	Carson	CA	Vanessa	Ikegami	23566	A	Successful Participant
Fairhope High School	Fairhope	AL	Margaret	Szedlmayer	23593	A	Successful Participant
Germantown Academy	Fort washington	PA	Paul	Henry	23699	A	Successful Participant
Germantown Academy	Fort Washington	PA	John	Millar	23700	A	Successful Participant
Laughlin High School	Laughlin	NV	Cassandra	Dulmage	23502	A	Successful Participant
MA Academy of Mathematics and Science	Worcester	MA	Jim	Barys	23647	A	Successful Participant
Newton South High School	Newton Centre	MA	Felisa	Honeyman	23441	A	Successful Participant
Oceanside High School	Oceanside	NY	Martin	Rudolph	23473	A	Successful Participant
Prior Lake Senior High School	Prior Lake	MN	Damon	Bovard	23475	A	Successful Participant
Prior Lake Senior High School	Prior Lake	MN	Damon	Bovard	23476	A	Successful Participant
Rochester High School	Rochester	IN	John	Roberts	23482	A	Successful Participant
Rochester High School	Rochester	IN	John	Roberts	23513	A	Successful Participant
Sidwell Friends School	Washington	DC	Eric	Steadman	23630	A	Successful Participant
Skowhegan Area High School	Skowhegan	ME	Alan	Campbell	23669	A	Successful Participant
South Forsyth High School	Cumming	GA	Linda	Wright	23454	A	Successful Participant
Varina High School	Richmond	VA	Rich	Graul	23580	A	Successful Participant
Arkansas School for Mathematics & Sciences	Hot Springs	AR	Bruce	Turkal	23500	В	National Outstanding

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Illinois Mathematics and Science Academy	Aurora	IL	Ronald	Vavrinek	23424		National Outstanding
Sidwell Friends School	Washington	DC	Eric	Steadman	23626	В	National Outstanding
California Academy of Mathematics and Science	Carson	CA	Lisa	Usher	23564	В	Regional Outstanding
California Academy of Mathematics and Science	Carson	CA	Lisa	Usher	23579	В	Regional Outstanding
Cumberland Valley High School	Mechanicsburg	PA	Robert	Tate	23420	В	Regional Outstanding
Frontier Regional High School	South Deerfield	MA	Carol	Pike	23467	В	Regional Outstanding
MA Academy of Mathematics and Science	Worcester	MA	Jim	Barys	23649	В	Regional Outstanding
Mills E. Godwin High School	Richmond	VA	Ann	Sebrell	23504	В	Regional Outstanding
The Charter School of Wilmington	Wilmington	DE	Chuck	Biehl	23477	В	Regional Outstanding
Arkansas School for Mathematics & Sciences	Hot Springs	AR	Bruce	Turkal	23501	В	Meritorious
Brookline High School	Brookline	MA	Ryota	Matsuura	23605	В	Meritorious
California Academy of Mathematics and Science	Carson	CA	Vanessa	Ikegami	23562	В	Meritorious
California Academy of Mathematics and Science	Carson	CA	Lisa	Usher	23567	В	Meritorious
Centennial High School	Ellicott City	MD	Carolyn	Miller	23537	В	Meritorious
Chesterfield County Math & Science H.S.	Midlothian	VA	Wilton	Johns	23417	В	Meritorious
Chesterfield County Math & Science H.S.	Midlothian	VA	Wilton	Johns	23418	В	Meritorious
Chesterfield County Math & Science H.S.	Midlothian	VA	Zorica	Skoro	23419	В	Meritorious
Germantown Academy	Fort Washington	PA	Mark	Rabuck	23694	В	Meritorious
Highland Park High School	Dallas	TX	Charles	Tillerson	23631	В	Meritorious
Illinois Mathematics and Science Academy	Aurora	IL	Ronald	Vavrinek	23665	В	Meritorious
James F. Byrnes High School	Duncan	SC	Katie	Johnson	23617	В	Meritorious
MA Academy of Mathematics and Science	Worcester	MA	Jim	Barys	23639	В	Meritorious
MA Academy of Mathematics and Science	Worcester	MA	Jim	Barys	23641	В	Meritorious
MA Academy of Mathematics and Science	Worcester	MA	Jim	Barys	23646	В	Meritorious
Mills E. Godwin High School	Richmond	VA	Ann	Sebrell	23503	В	Meritorious
Montgomery Blair High School	Silver Spring	MD	Nannette	Dyas	23659	В	Meritorious
Paul D. Schreiber High School	Port Washington	NY	Elaine	Labrocca	23527	В	Meritorious
The Ellis School	Pittsburgh	PA	Eric	Zahler	23432	В	Meritorious
The Governor's School for Gov't & Int'l Studies	Richmond	VA	Crista	Hamilton	23463	В	Meritorious
The Governor's School for Gov't & Int'l Studies	Richmond	VA	Crista	Hamilton	23464	В	Meritorious
Brookline High School	Brookline	MA	Ryota	Matsuura	23606	В	Honorable Mention
California Academy of Mathematics and Science	Carson	CA	Vanessa	Ikegami	23530	В	Honorable Mention
California Academy of Mathematics and Science	Carson	CA	Vanessa	Ikegami	23551	В	Honorable Mention
California Academy of Mathematics and Science	Carson	CA	Vanessa	Ikegami	23555	В	Honorable Mention
California Academy of Mathematics and Science	Carson	CA	Vanessa	Ikegami	23572	В	Honorable Mention
California Academy of Mathematics and Science	Carson	CA	Lisa	Usher	23559	В	Honorable Mention
Charlotte Country Day School	Charlotte	NC	Sheila	McGrail	23521	В	Honorable Mention
Davis High School	Yakima	WA	Rick	Jennings	23661	В	Honorable Mention
Edwin O. Smith High School	Storrs	CT	George	Parker	23591	В	Honorable Mention
Fitch High School	Austintown	ОН	Tom	Reardon	23542	В	Honorable Mention
Fitch High School	Austintown	ОН	Tom	Reardon	23543	В	Honorable Mention
Frontier Regional School	South Deerfield	MA	Patricia	Taylor	23434	В	Honorable Mention
Gresham High School	Gresham	OR	Kay	Francis	23428	В	Honorable Mention
Lajes High School	APO	AE	Eileen	Kless	23479	В	Honorable Mention
MA Academy of Mathematics and Science	Worcester	MA	Jim	Barys	23642	В	Honorable Mention

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Madison East High School	Madison	WI	Cynthia	Chin	23446	В	Honorable Mention
Maine School of Science and Mathematics	Limestone	ME	Duncan	Innes	23495	В	Honorable Mention
Mills E. Godwin High School	Richmond	VA	Ann	Sebrell	23506	В	Honorable Mention
Milton High School	Milton	MA	Sharon	Hessney	23431	В	Honorable Mention
Mineral Ridge High School	Mineral Ridge	ОН	Virginia	Blaney	23466	В	Honorable Mention
Mt St Joseph Academy	Flourtown	PA	Mary	Butler	23535	В	Honorable Mention
Paul D. Schreiber High School	Port Washington	NY	Elaine	Labrocca	23529	В	Honorable Mention
Rochester High School	Rochester	IN	John	Roberts	23514	В	Honorable Mention
Sidwell Friends School	Washington	DC	Eric	Steadman	23623	В	Honorable Mention
Sitka High School	Sitka	AK	Dan	Langbauer	23681	В	Honorable Mention
Varina High School	Richmond	VA	Skip	Tyler	23613	В	Honorable Mention
Boston University Academy	Boston	MA	Gary	Garber	23453	В	Successful Participant
California Academy of Mathematics and Science	Carson	CA	Vanessa	Ikegami	23565	В	Successful Participant
California Academy of Mathematics and Science	Carson	CA	Vanessa	Ikegami	23568	В	Successful Participant
California Academy of Mathematics and Science	Carson	CA	Lisa	Usher	23577	В	Successful Participant
Fitch High School	Austintown	ОН	Tom	Reardon	23544	В	Successful Participant
Frontier Regional School	South Deerfield	MA	Patricia	Taylor	23433	В	Successful Participant
Lajes High School	APO	AE	Eileen	Kless	23478	В	Successful Participant
Lancaster High School	Lancaster	NY	Barbara	Mocarski	23413	В	Successful Participant
Norview High School	Norfolk	VA	Joe	Joyner	23541	В	Successful Participant
Prior Lake Senior High School	Prior Lake	MN	Katy	Hallberg	23439	В	Successful Participant
Rochester High School	Rochester	IN	John	Roberts	23515	В	Successful Participant
Rochester High School	Rochester	IN	John	Roberts	23516	В	Successful Participant
Rochester High School	Rochester	IN	John	Roberts	23517	В	Successful Participant
Rochester High School	Rochester	IN	John	Roberts	23525	В	Successful Participant