

JAWAS, LASER BURNS AND DARTH VADER

by Mike Dorfller
Photos by Charlie Webb

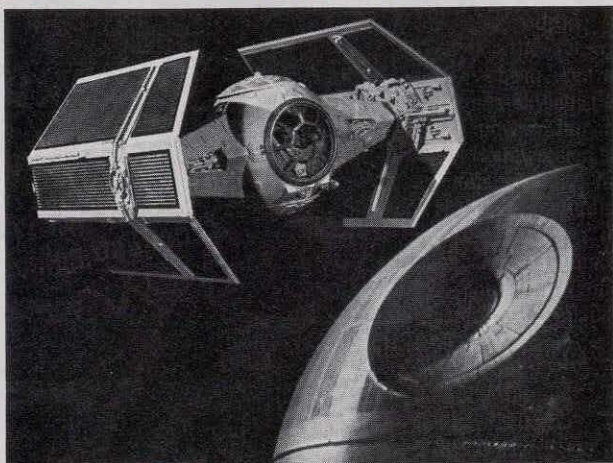
It was strangely quiet as we slowly approached the designated vine covered structure. The "silence" was broken only by the nearby San Diego Freeway traffic and the rapid overflight of private aircraft from an airport located closeby.

As I read the sign on the massive wooden door I suddenly felt a tremor in the FORCE and thought we may have made a serious mistake in coming. It read: "ENTER AT YOUR OWN RISK, (signed) Darth Vader." We said nothing but stared at each other not knowing what to expect. We knocked the pre-instructed number of times then moved away from the door. After a few moments, it opened just far enough for one of the occupants to gaze at us with one eye. Then a low voice said, "State your name and business".

"We're from Estes Industries and have come to examine the spacecraft," one of us stuttered.

"Ah-h-h, good. You're expected." The door opened further and we entered making every effort to keep our balance as the four heavy equipment cases we carried made movement difficult.

Once inside one could feel the awesome presence of the FORCE. The silence was again deafening. Only the FM stereo receiver blaring hard rock and the sound of hyperactive typewriters kept us from speaking in hushed words. We had safely passed



Darth Vader's TIE Fighter screams past the "ominous" Death Star, to challenge the X-Wing Fighters of the Rebel Forces.

from the outside world into the incredible Industrial Light and Magic Studio where the STAR WARS

elves to the team of brilliant artists (and Model Rocketeers) who made STAR WARS such a success.

We met Joe Johnston, the creator of all the spacecraft used in the movie. He is an outstanding artist and it was his renderings that guided the construction of



Joe Johnston (Right), creator of STAR WARS spacecraft explains detail of Darth Vader's TIE Fighter to Estes photographer, Charlie Webb.



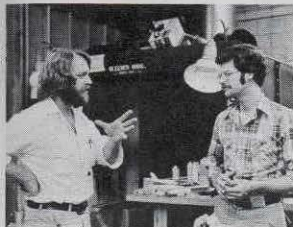
Charlie Webb closely examines Darth Vader's super-highly detailed TIE Fighter.

special effects were filmed. It was to be an experience that Charlie Webb, Wayne Kellner and I will never forget.

We tried to hide our drooling, pop-eyed, tongue hanging expressions to no avail as we introduced our-

the models used in filming. He was also responsible for doing the "story board" illustrations used to guide the team in filming the action

shots. We met a few of the guys who actually built those unbelievable models, like Steve Gawley, Lorne Peterson and Grant McCune. We talked to Mas Norihiro, Richard Edlands, Doug Smith and the man who created the computerized camera system to film those fantastic space battles, John Dykstra.



Wayne Kellner (Right), Estes R&D Staff, raps with Grant McCune, STAR WARS model builder.

After we visited for about an hour exchanging model rocket experiences, asking thousands of questions about the models and sound effects, and the problems they encountered making the film, we were led into the film studio where the STAR WARS models were stored.

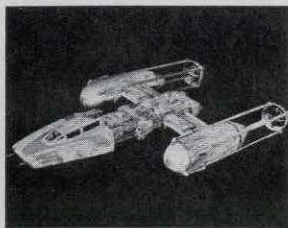
There in one corner were several large, white wooden crates with STAR WARS stenciled all over them. Charlie, Wayne and I waited breathlessly as the first crate was opened. The foam packing sheets were lifted out followed by a huge three-foot square plexiglass dust case. I had to re-adjust my pacemaker as I saw the T.I.E. Fighter for the first time. It was huge! It was nearly two feet from engine panel



Wayne takes scale measurements of Y-Wing Fighter.

to engine panel, and almost as high. The detailing was breathtaking. You could even see the wrinkles on the pilot's

uniform. And so it went. As the X-Wing Fighter and



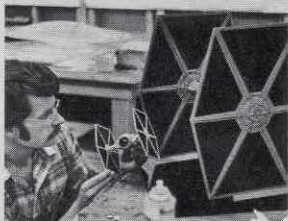
Incredibly detailed STAR WARS Y-Wing Fighter.

the Y-Wing Fighter were uncrated Charlie unpacked his cameras and began to set up the T.I.E. Fighter for picture taking. He took nearly 500 pictures of the models in two days, and some of these



Wayne and Mike Dorffler, Estes R&D Staff, discuss Darth Vader's TIE Fighter.

are shown here just for you. Although all of the models were expertly built and finished, the favorite of the three of us was Darth Vader's. There was only one of this model built where all of the



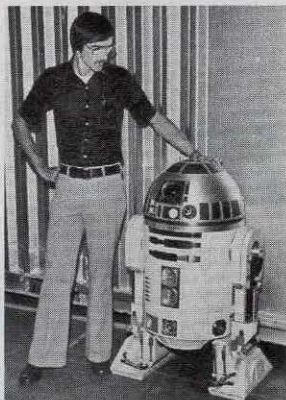
Wayne compares movie TIE Fighter to real movie version.

others required several copies. The reason for this was that some needed to be blown-up during the filming.

It took over two years of painstaking work to create and film all of the models we saw. For instance; once a particular flight sequence was decided upon, a model or models had to be placed on

special support stands, the camera lined up and a test shot taken. This strip of film was processed immediately and viewed. If the sequence was not quite right, the models were adjusted and re-filmed.

It's also difficult to imagine that the system John Dykstra used to film the models had not been attempted before. The models NEVER MOVED. All the movement that you see in the STAR WARS movie is in your mind. These fantastic glimpses of spacecraft moving and rolling at high rates of speed were created by movements of only the movie camera. The computer system used to control the movement of the camera system could also remember what was filmed previously and how it was filmed.



Mike Dorffler meets STAR WARS robot hero, R2-D2.

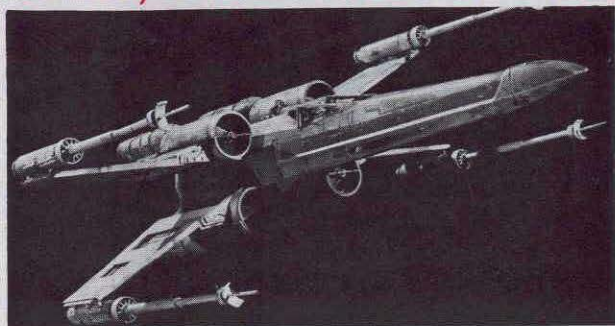
Remember when the escape pod with C3PO and R2-D2 jetisoned from the Blockade Runner in the beginning of the movie? What you saw was a small model dropped from an opening in a table-top sized scene with the camera looking down from above. Do you also remember when the Blockade Runner was hit by a Laser blast from the Corellian Stardestroyer in the beginning? And how the explosion flared up and away into free space? That scene was filmed upside-down so that gravity would pull all the blast debris down and away from the model.

(Continued Next Page)

STAR WARS Flying Models Coming Soon! STAR WARS Flying Models Coming Soon!

(Continued From Page 19)

JAWAS, LASER BURNS AND DARTH VADER



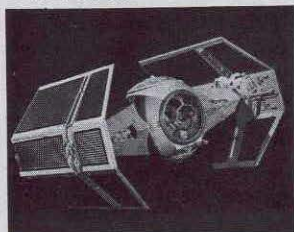
Close-up of fantastic movie model of X-Wing Fighter.

These guys are real tricky and true magicians.

Remember those sound effects? They were all added later, using a very complex electronic sound mixing system. We were really surprised to learn that the T.I.E.

Fighter engine roar was actually an elephant roar electronically "enhanced". Chewbacca's "voice" is actually a mixture of walrus and bear. Artoo's buzzing, bleeping, and chirps were all expertly created on a

Moog Synthesizer. All of the work done on STAR WARS is the result of over 900 dedicated people and we only met a few of these. It was an experience to be long remembered.



Close-in shot of Darth Vader's TIE Fighter. Notice super-detailed cockpit.

We hope you enjoy these photos.

MAY THE FORCE BE WITH YOU.

SPECIAL NOTICE "New" Star Wars Kits

Although we're as excited as you are about our new STAR WARS Kits, the only kit available at this time is the STAR WARS PROTON TORPEDO STARTER OUTFIT (#1420) featured on pages 12 & 13. Please do not order our other STAR WARS models until you receive our 1978 Model Rocketry Catalog scheduled to be mailed in February 1978. Thank you for your patience as we're sure you won't be disappointed. By the way, EAC members will be the first to receive our 1978 Catalog, so if you're not yet a member, JOIN NOW! (See page 14 for special membership discount.)



IRON-ON DECALS For

Your T-Shirts, Wind
breakers, and Range Jackets.

Remember all orders received on odd numbered months will be given a "FREE" iron-on decal for your T-shirts, windbreakers, or range jacket. These new Estes iron-ons will feature a variety of super-neat designs. You iron it on right at home to any surface containing 50% or more polyester. Remember these great new iron-ons will be available only with your return mail orders on the odd numbered months (January, March, May, etc.)

Help Us Publish Model Rocket News

Got any good ideas for MODEL ROCKET NEWS articles, technical information, cartoons, anecdotes, club news of unusual interest, etc.? Then why not submit them to us for possible publication? Our constant aim is to make MRN a better, more interesting magazine, and you might be just the type of contributor we need.

If you send us photos, please make sure that you pack them between cardboard sheets so that they won't get creased in the mail. All contributions become the property of Estes Industries and cannot be returned. Address all material to: MRN Editor, Estes Industries, Penrose, Colorado 81240.

Should your article or photos be used in MRN, we'll reward your efforts and talent with an Estes merchandise certificate, the amount of which will be determined by the MRN editorial staff.

Hope to hear from you soon!

DON'T MISS AN ISSUE OF MODEL ROCKET NEWS

Model Rocket News is published six times yearly and inserted with return mail orders. To receive your bi-monthly copy simply place an order or request the latest issue from: Estes Industries, Attn: MRN Editor, Penrose, Colo. 81240.

MRN PUBLICATION SCHEDULE			
Vol.	No.	Month	Year
17	6	December	1977
18	1	February	1978
18	2	April	1978
18	3	June	1978

Note: We regret that the MRN is not available as a subscription as we do not have the internal staff and machinery to handle such a program at this time.

YOUR BEST BET IS TO OBTAIN MODEL ROCKET NEWS WITH YOUR NEXT ORDER!

SEMI-SCALE

sidewinder

HONORABLE MENTION FEBRUARY 1976
DESIGN OF THE MONTH CONTEST

By SCOTT ORMSBY Bay Village, OH

Build the SIDEWINDER with Estes High
Performance Parts and Accessories.

PARTS LIST

A)	1	Body Tube (BT-50)	3073
B)	1	Engine Mount (EH-2050)	3150
C)	1	Fin Stock (BFS-30)	32108
D)	1	18" Parachute (PK-18)	2267
E)	1	Shock Cord	2276
F)	2	Launch Lug (LL-2A)	2321
G)	1	Screw Eye	2280
H)	1	Nose Cone (BNC-50J)	8008

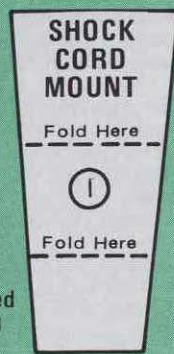
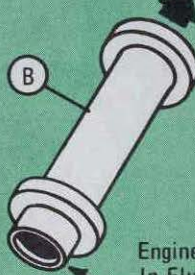
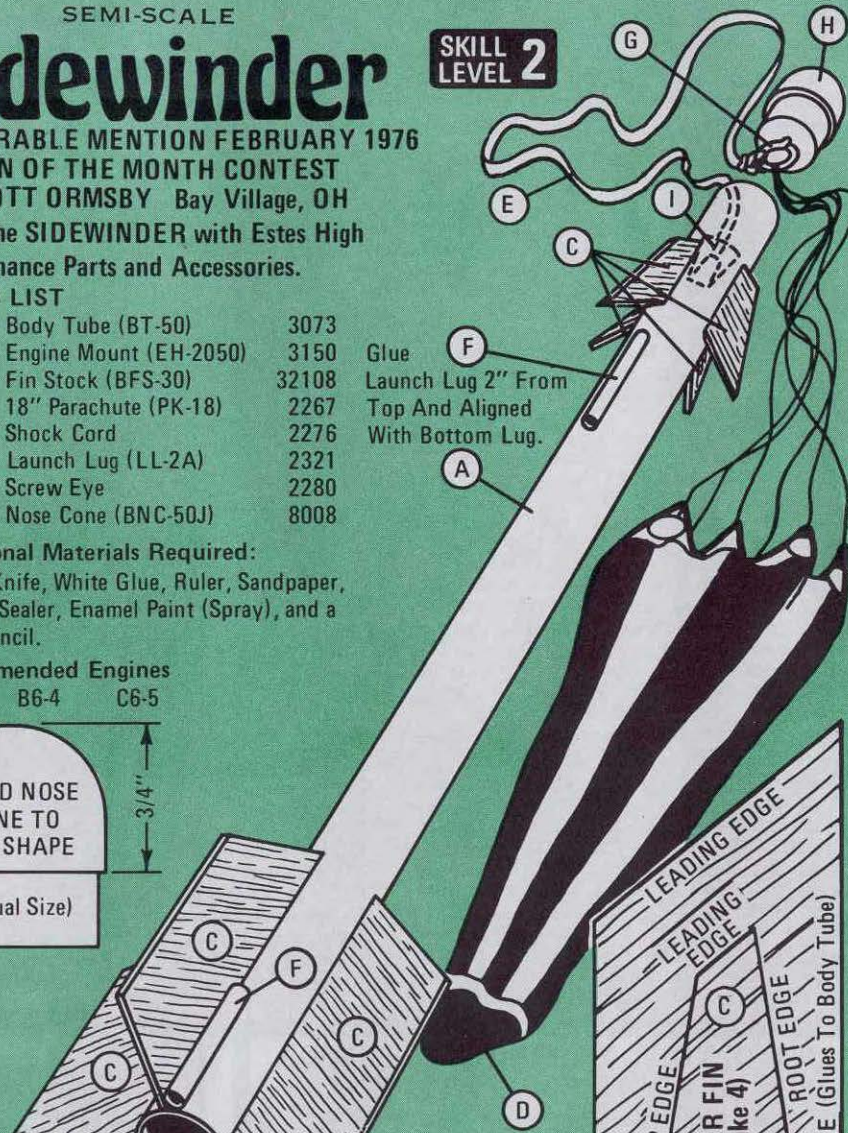
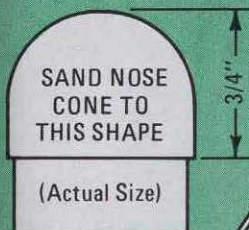
Additional Materials Required:

Hobby Knife, White Glue, Ruler, Sandpaper, Sanding Sealer, Enamel Paint (Spray), and a Sharp Pencil.

Recommended Engines

A8-3 B6-4 C6-5

SKILL LEVEL 2



DESIGN OF THE MONTH WINNERS

Congratulations to another fine group of Estes Rocketeers for their outstanding DOM entries. First place winners will receive \$75.00 merchandise certificates and honorable mentions will be awarded \$10.00 certificates. Keep those entries coming, maybe you'll be our next winner!

JULY 1977 — First Place Seven-Way-Tie: Ernesto Uribe II, APO New York (Under Water Launch System). Roger Gilbertson, Woodside, CA (Inca 1). Tom Baker, Phoenix, AZ (Lathe). Andrew Dubner, Potomac, MD (Hideaway). Duane L. McVay, Findlay, OH (The 7-UP Rocket). Gordon Bugg, Gadsden, AL (Sky-sighter: Rocket Tracker). Joseph Schell, Helena, MT (The Black Cat). Honorable Mention: Gordon Bugg, Gadsden, AL (Talon). Jay Rickerts, Oklahoma City, OK (Artemis Clipper). Dan Williamson, Irvine, CA (F-19 Super 'Ceptor). Jonathan Pierce, Charlotte, NC (Excaliber). Eddie Cox, Washington, NC (XV-9 Star Fighter). Alexander Pucciariello, Roscoe, NY (U.S. Intermolecular Space Voyager). Andrew Tuls, Lancaster, CA (Guillotine). Michael Bibeault, Dracut, MA (The Marauder). Michael Webb, Emmetsburg, IA (Anterogator). Erik Downey, Newark, DE (Star Fire). Robert Wenzel, Carmel, IN (Severus). Willie Miller, Tijeras, NM (Side Winder S-X). David Suda, Latrobe PA (Confederate). Tommy Best, Corpus Christi, TX (Defender).

AUGUST 1977 — First Place Five-Way-Tie: Chris Donahue, Northport, AL (Neutron Express). Randy Heald, Lamesa, TX (Messenger 1). Rick Salgado, Los Alamos, NM (Blue Angel). Tony Stockard, Rhome, TX (Sweep-Wing Rocket). Bob Luzenski, Sterling Hts., MI (Electronic Launch Control System). Honorable Mention: Brian Casey, Shorewood, IL (The Venus Explorer). Terry King, West Lafayette, IN (The Pocket Rocket Concept). Karel Chaloupka, Missouri City, TX (Skyliner). Donald Stewart, Anoka,

MN (Dragonfly I). Jack Benz, Loveland, CO (Titan II). Daniel Rick, Dallas, TX (Orion). Jason K. Durfee, Orem, UT (Luna VII). Steve Fox, Christ Church, Barbados, W. Indies (Sprite).

SEPTEMBER 1977 — First Place Tie: Karl Reissig, Montgomery, NY (Black Giant). Mike Hilton and Sean Fitzpatrick, Alexandria, LA (Neutron Star). Honorable Mention: Mitchell Stepuch, Hanford, CA (Galaxy). Pete Monfre, Casper, WY (Shuttle). Dave Amory, Mercer Island, WA (Daedalus). Melvin Quan, Los Angeles, CA (Ivan Hoe). Debbie Summa, Bardonia, NY (Vulcan). Dan Gregory, Brook Park, OH (Trirac D). Gary Friedman, Lexington, MA (Freighter X-7). Chris Del Rossi, Jaffrey, NH (Red Nose Patriot). Steve L. Gillies, Dillon, CO (Cobra). Craig Power, McKeesport, PA (Altair 3). James O'Turner III, N. Charleston, SC (Fatso). Matthew Queen, Fruitdale, SD (Swift). Mike Bays, Sand Diego, CA (Commodore I).

OCTOBER 1977 — First Place Four-Way-Tie: Rick Gaulke, Overland Park, KS (Arachnid Destroyer). Robert Vavrik, Longwood, FL (Midnight Streak). Steve Semkins, Irmo, SC (Cosmic-Probe). Michael Annechini, Willingboro, NJ (Planet Probe). Honorable Mention: Peter Byrnes, Victoria, BC Canada (Phaser). Francis Pang, Stockton, CA (Voyager II). Jim Bulkley, Aspen, CO (The Lance). John Dodd, New City, NY (Electron). Lee Dayton, Palmyra, NY (Sky Base International). Greg Yeomans, Vancouver, BC Canada (Centaurus). Dennis Reip, Port Ewen, NY (Voyager IV). Fedel Marquez, Chicago, IL (Hercules I). Bill Cravis, Lexington, MA (Space Witch).

WANT YOUR TEACHER TO SPONSOR A MODEL ROCKET CLUB?

Model rocketry is a fun way to learn about the big rockets, space ships, and science. If you want us to send your teacher some free information about model rocketry as a school sponsored activity, send us your teacher's name, school name, school address, city, state, and zip code.

We will send your teacher a guide explaining why model rocketry is a great school activity. A current catalog with all of our great new rockets will be sent. A list of our many publications on specialized areas of rocketry will be included.

Send your teacher's full name and address (as explained above) to:

Education Department
Estes Industries
Department 51N
Penrose, Colorado 81240

"IMPORTANT NOTICE"



MRN CREATURE
CONTEST WINNERS
WILL BE FEATURED
IN THE DECEMBER
1977 ISSUE OF
MODEL ROCKET
NEWS

"DON'T MISS IT"

THE IDEA BOX



FIN REPAIR TIP

Hold broken fins in place while there're being repaired.

James R. Durland
Arlington, TX



Bend inward
To Here

PARACHUTE STORAGE IDEA

Open parachute out and put an inflated balloon in the chute. Leave this way until used.

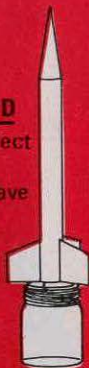


Richie Walton
Holden, MA

QUICK PAINT STAND

An old glass jar makes a perfect stand for painting rockets, especially for those which have an engine hook sticking out further than the end of the rocket.

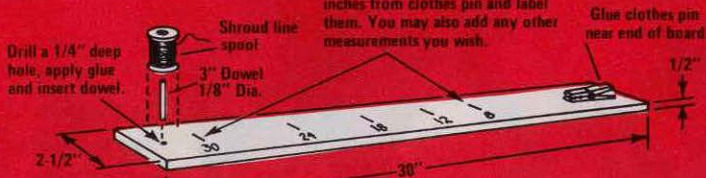
Jim Donahue
Great Falls, MT



SHROUD LINE MEASURE

Speeds assembly of parachutes, gives accurate measurements of shroud line string.

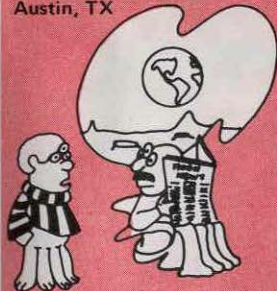
Mark lengths of 8, 12, 16, and 24 inches from clothes pin and label them. You may also add any other measurements you wish.



Dean Kavaikovich
Monroeville, PA

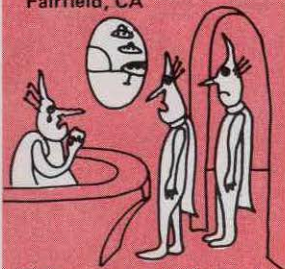
Place end of shroud line in clothes pin and use scissors or knife to cut string at desired length.

Thomas Fenstemaker
Austin, TX



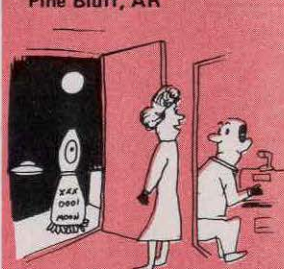
"May I have the flying saucer tonight, Dad?"

Danny Patterson
Fairfield, CA



"Our mission was a failure. The Earthlings don't have a cure for the common cold either"

Mark Moore
Pine Bluff, AR



"Remember that station that you talked to last month on your ham radio?"