

KIC 002575952

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
002575952-01	OBS	No	0.692109	131.905726	121.4	1.045	7.5	9.1	1.95	7580	2.50	33410.26
002575952-02	OBS	No	2.540394	131.929881	364.2	10.161	8.0	9.7	1.95	7580	7.06	5900.80
002575952-03	OBS	No	114.711157	155.827082	1366.1	5.165	9.1	5.4	1.95	7580	7.77	36.70

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002575952-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
002575952-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—MOD_NONUNIQ_DV
002575952-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

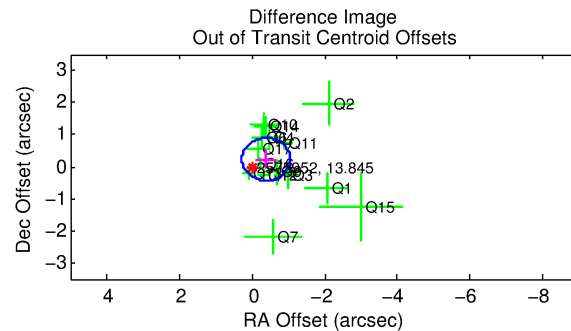
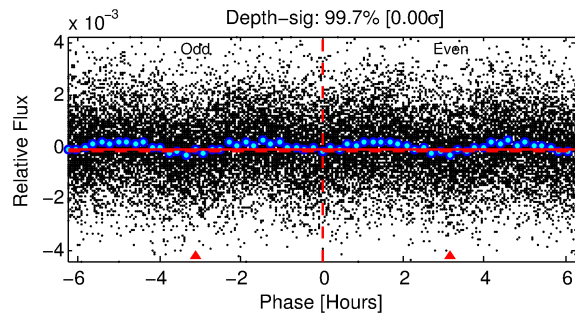
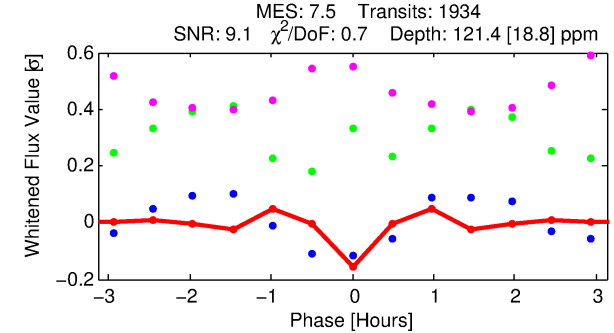
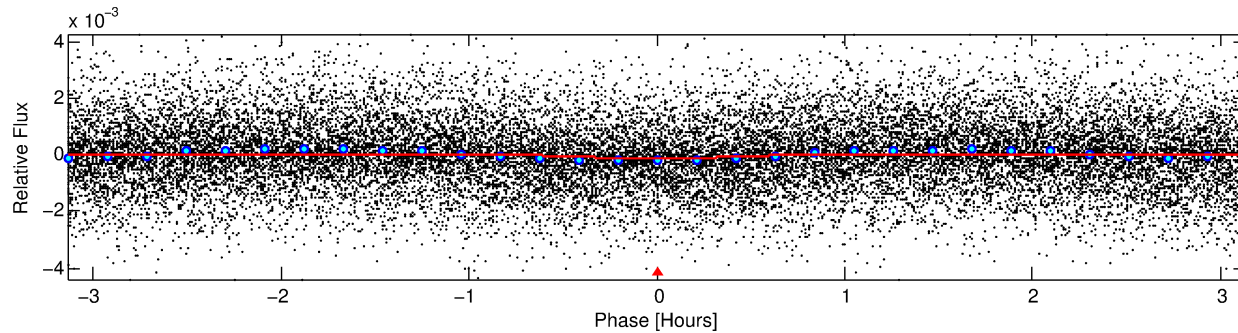
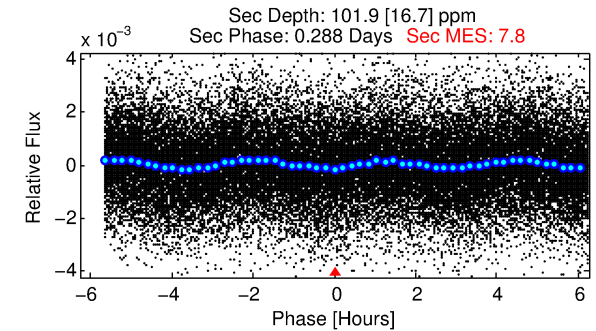
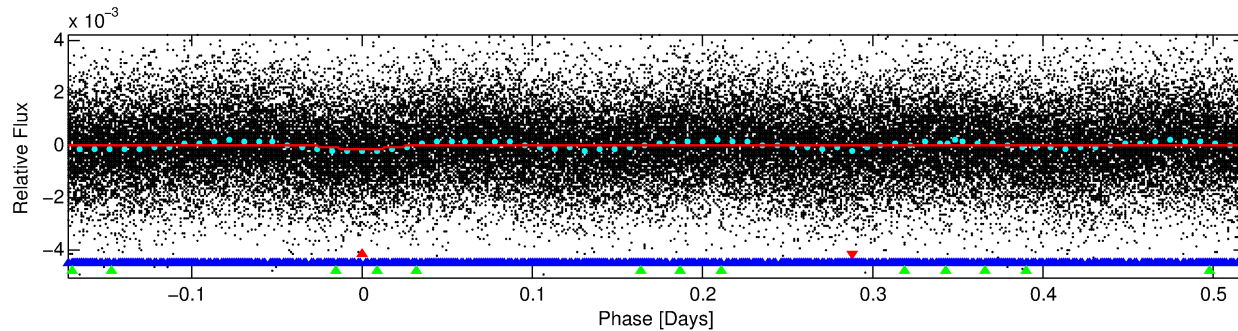
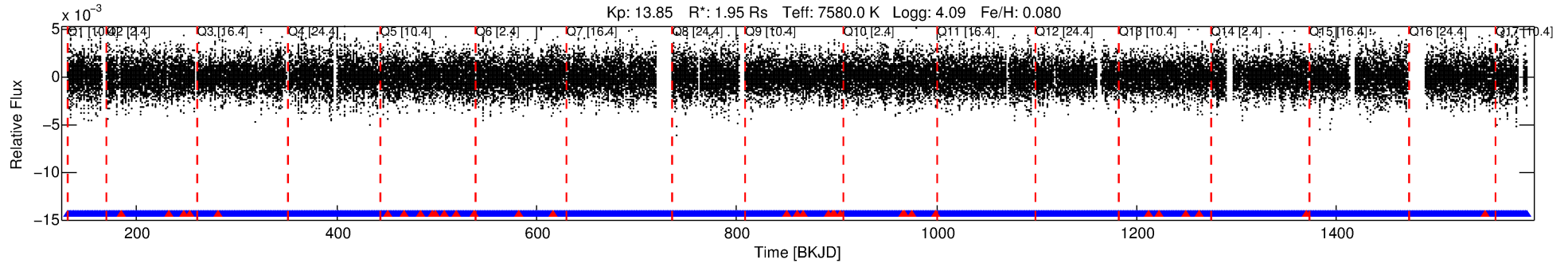
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002575952-01

No Significant Match Found

DV One-Page Summary

KIC: 2575952 Candidate: 1 of 3 Period: 0.692 d



DV Fit Results:

Period = 0.69211 [0.00001] d
Epoch = 131.9057 [0.0011] BKJD
Rp/R* = 0.0117 [0.0040]
a/R* = 2.52 [4.57]
b = 0.90 [0.46]
Seff = 33410.26 [12475.01]
Teq = 3447 [322] K
Rp = 2.50 [1.10] Re
a = 0.0183 [0.0043] AU
Ag = 3.02 [2.33] [0.87σ]
Teffp = 7026 [1257] K [2.76σ]

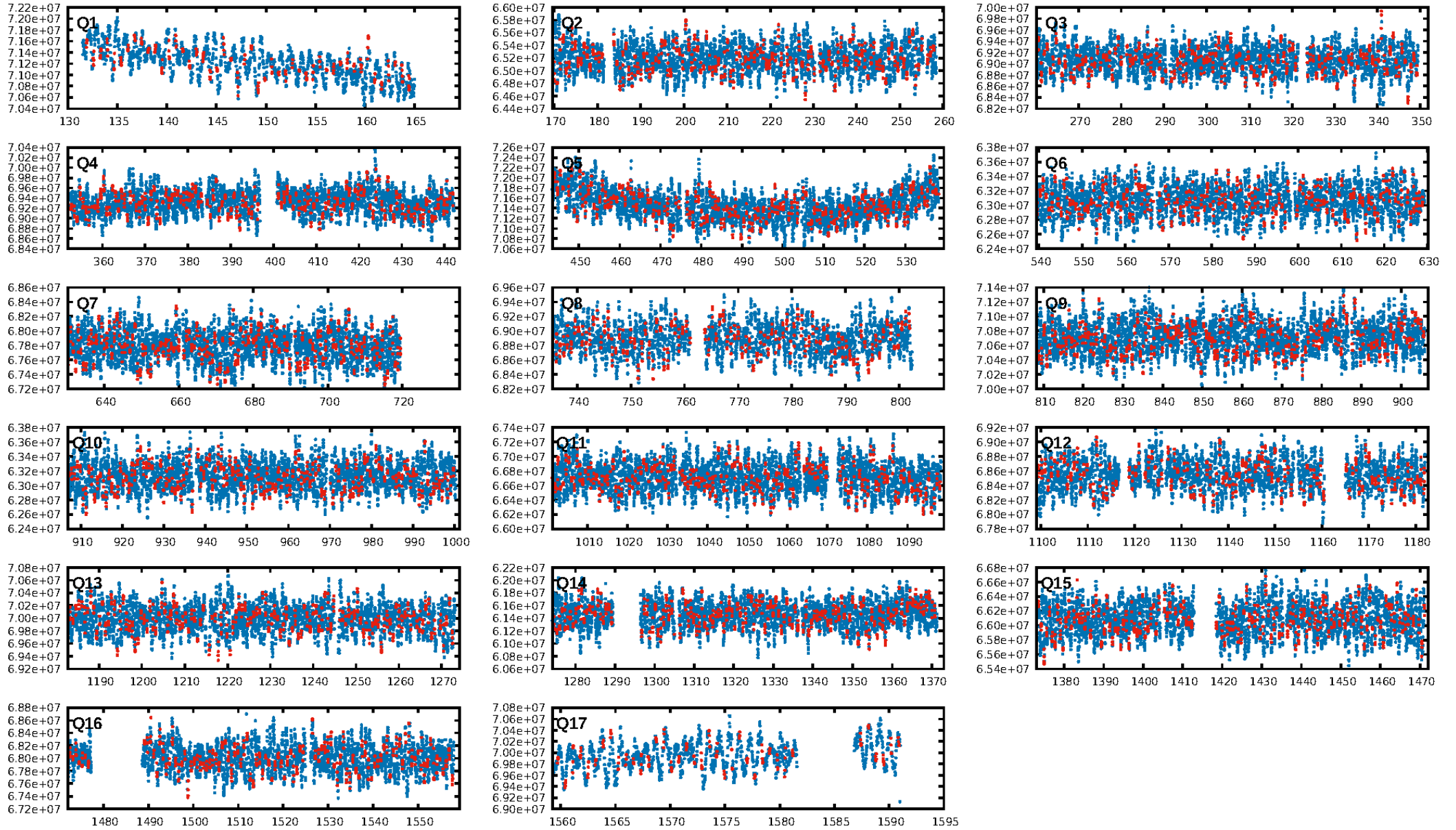
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [4.34σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.03e-12
RollingBand-fgt: 0.98 [1816/1848]
GhostDiagnostic-chr: 1.312
Centroid-sig: 0.0%
Centroid-so: 0.646 arcsec [1.31σ]
OotOffset-rm: 0.447 arcsec [2.01σ]
KicOffset-rm: 0.248 arcsec [1.10σ]
OotOffset-st: 4/4/3/4 [15]
KicOffset-st: 4/4/3/4 [15]
DiffImageQuality-fgm: 0.80 [12/15]
DiffImageOverlap-fno: 1.00 [17/17]

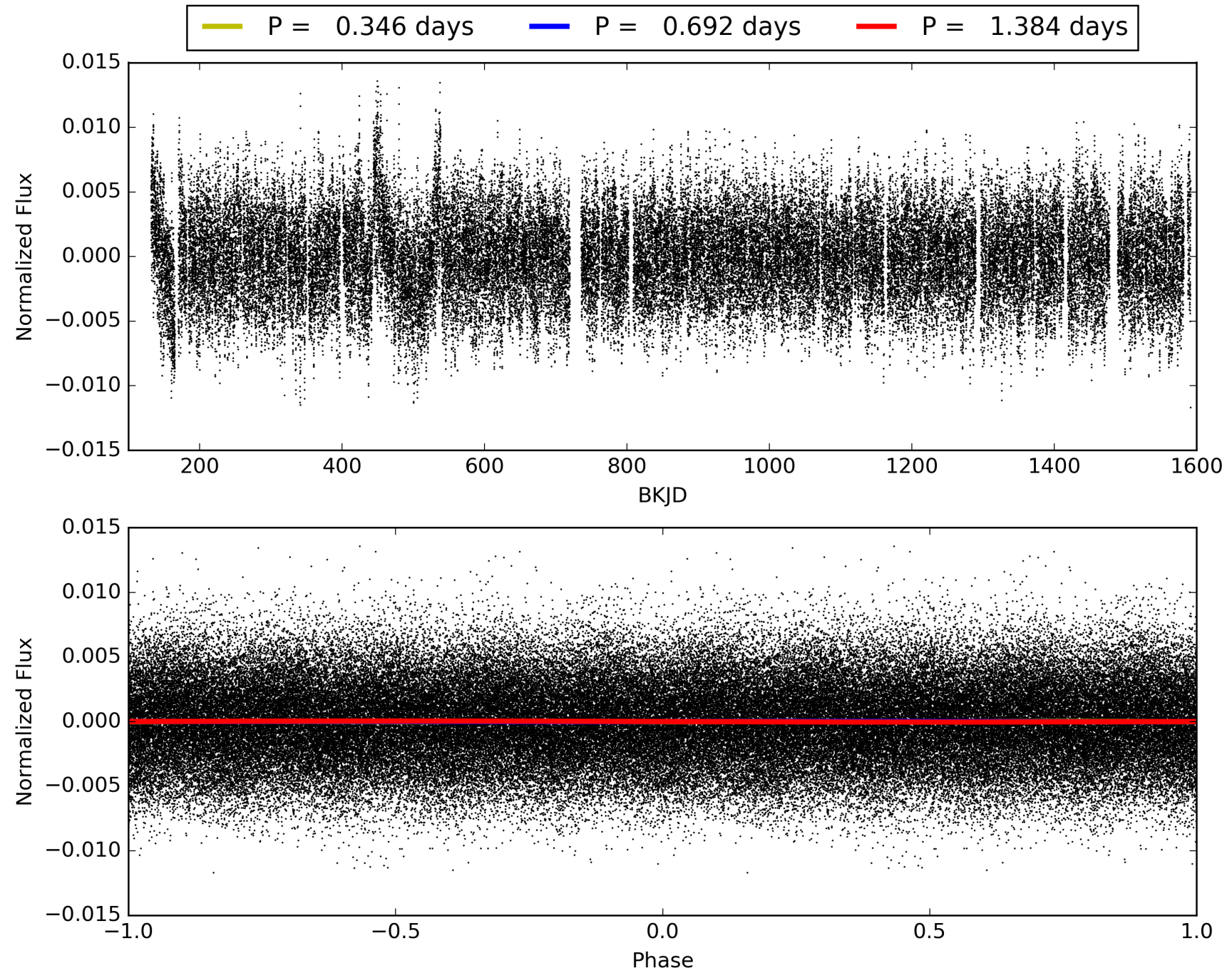
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 15:47:49 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 002575952-01, PDC Light Curves

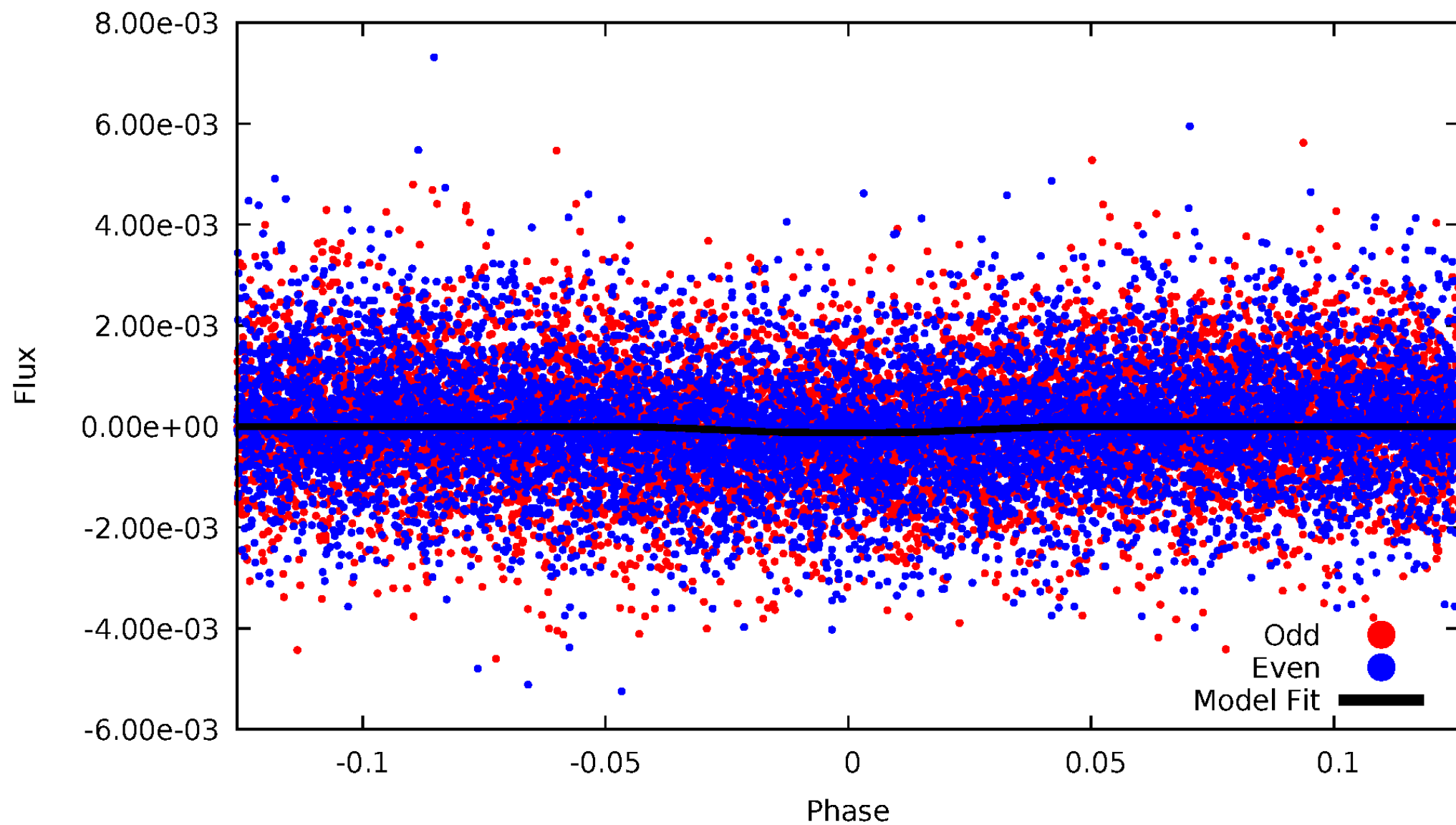


TCE 002575952-01



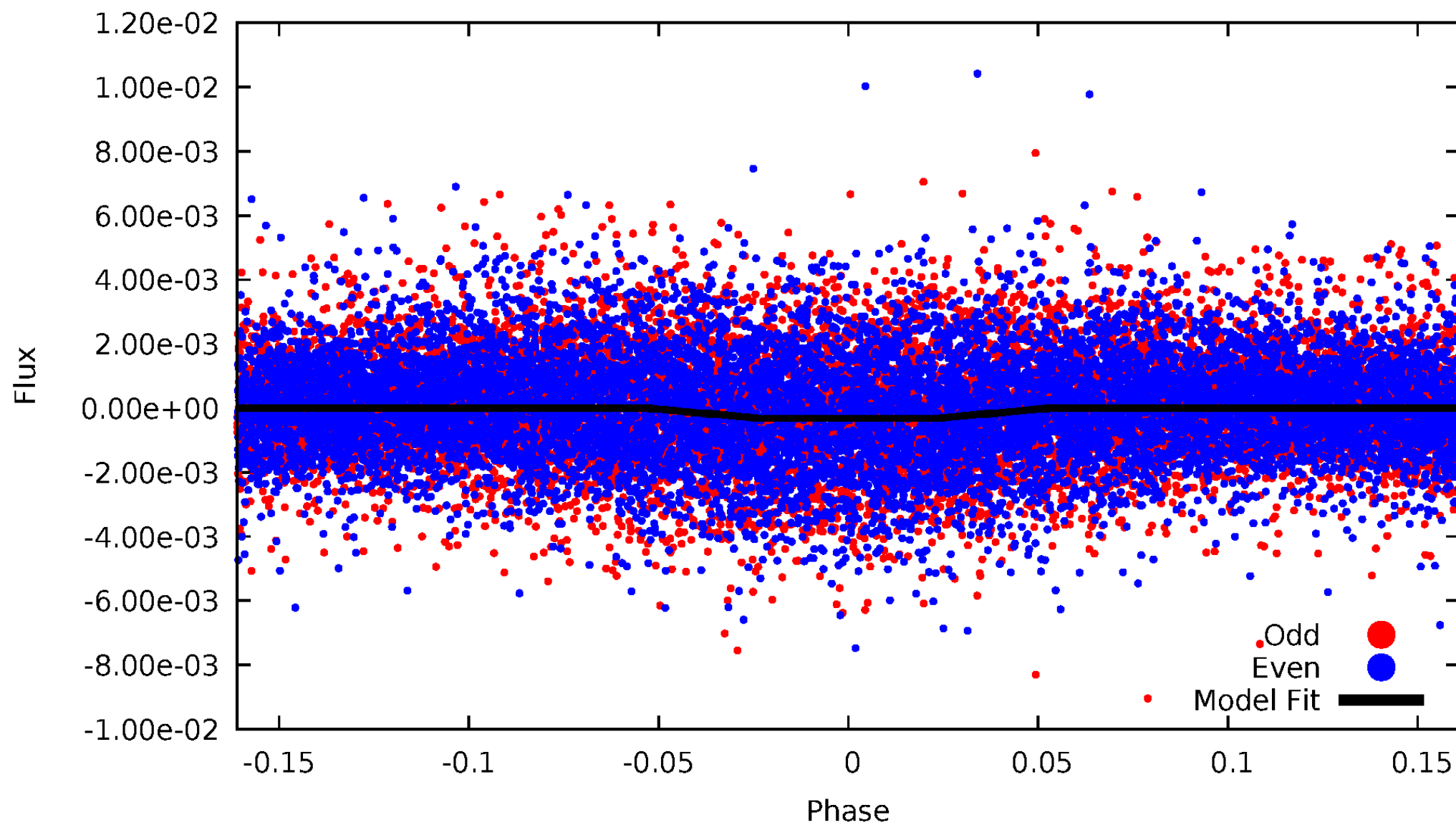
DV Odd/Even

TCE 002575952-01



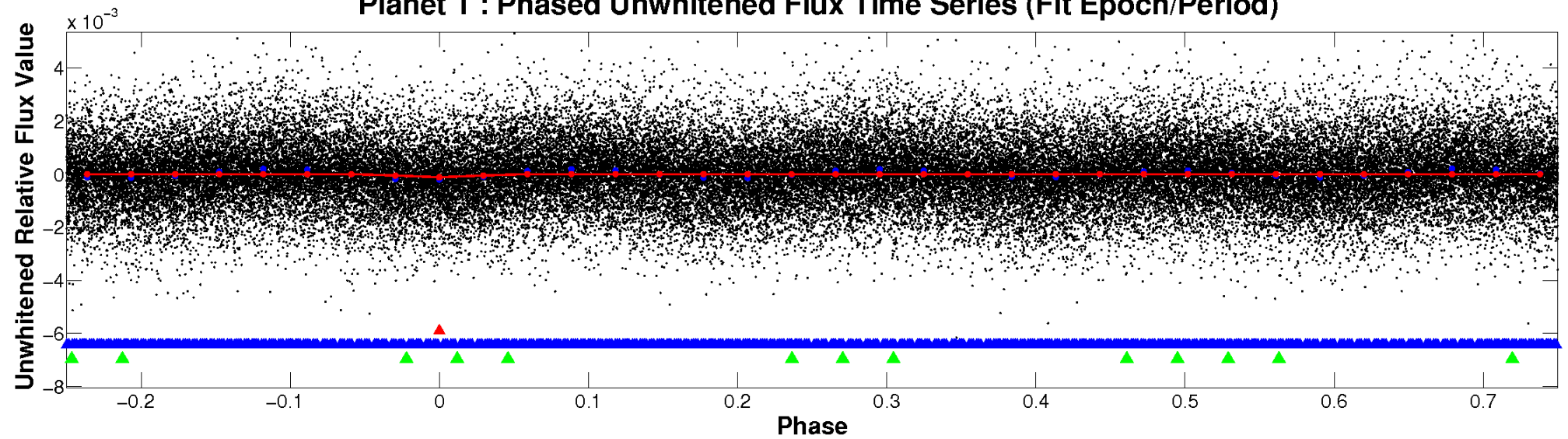
ALT Odd/Even

TCE 002575952-01

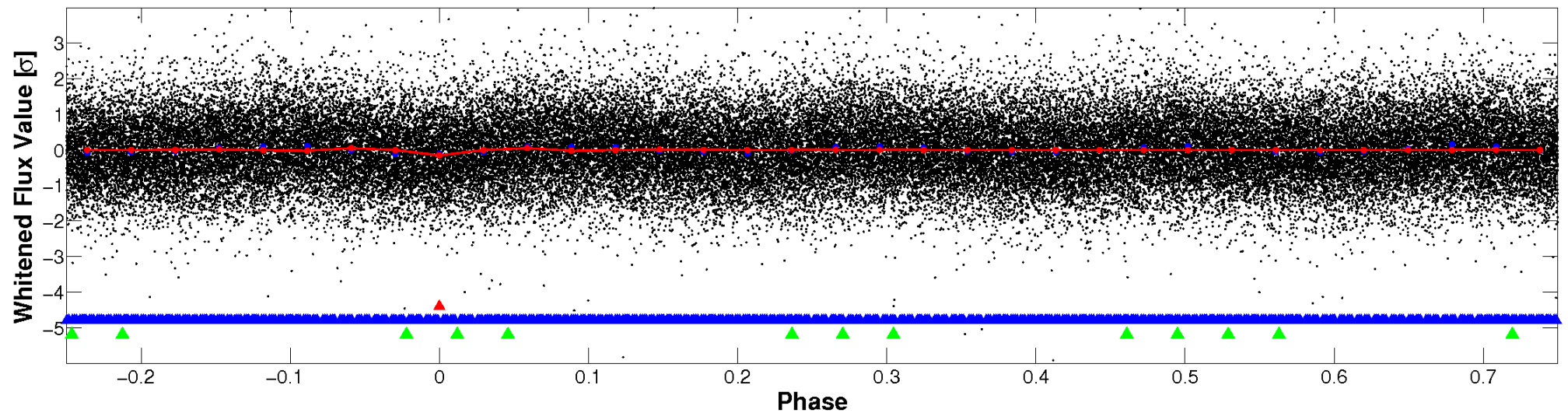


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

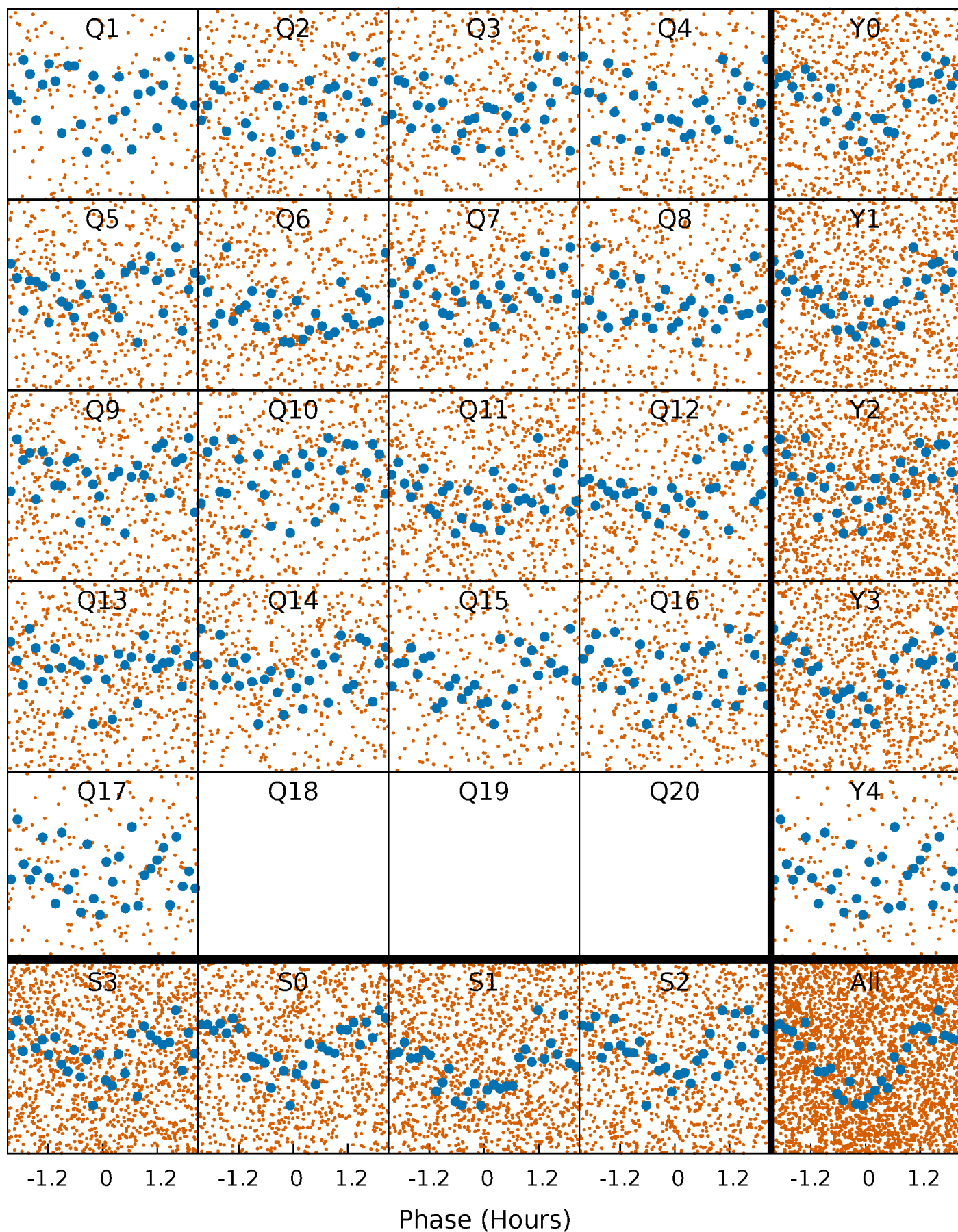


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



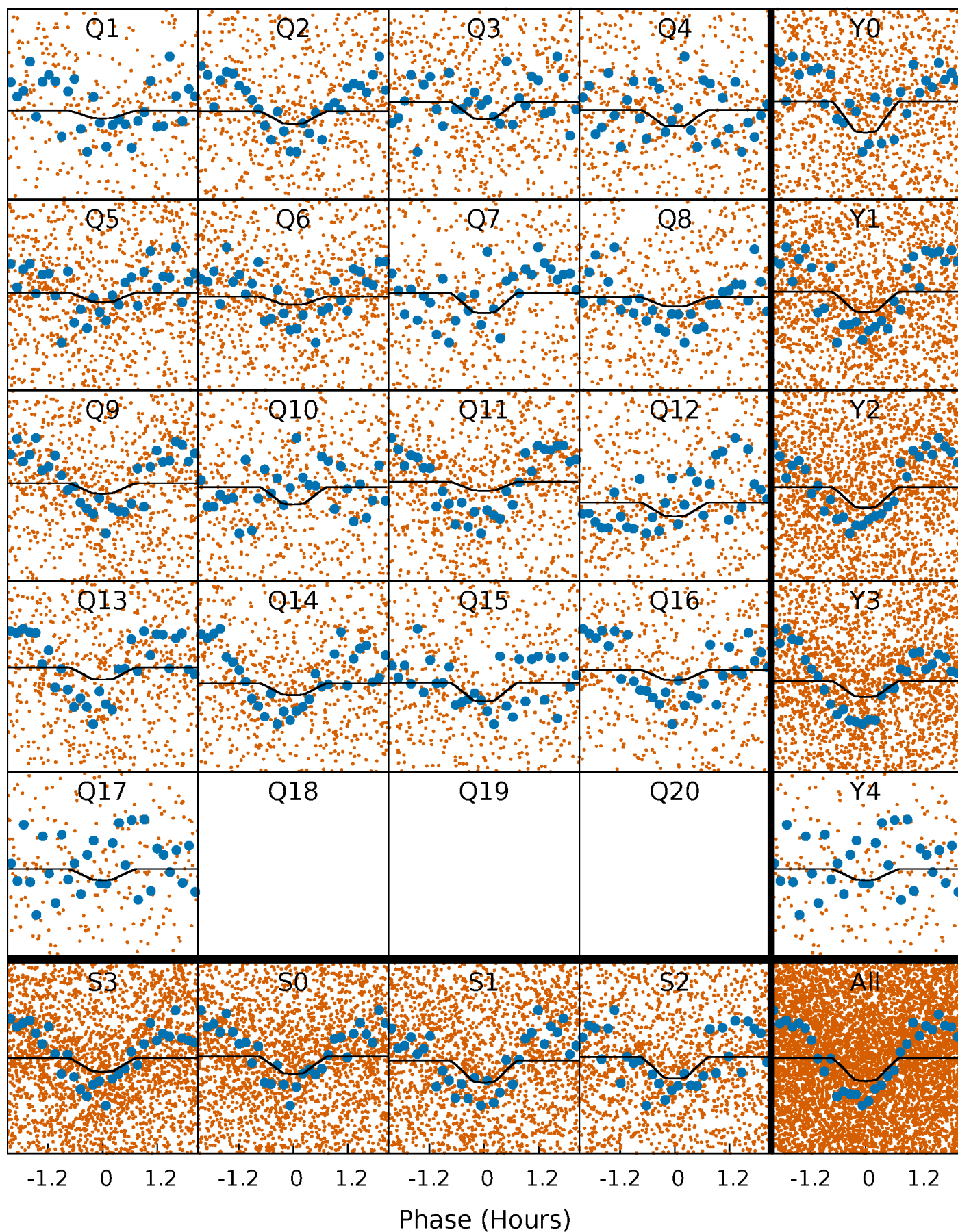
PDC Quarter-Phased Transit Curves

TCE 002575952-01 P= 0.692109 Days $T_0=131.905726$ (BKJD)



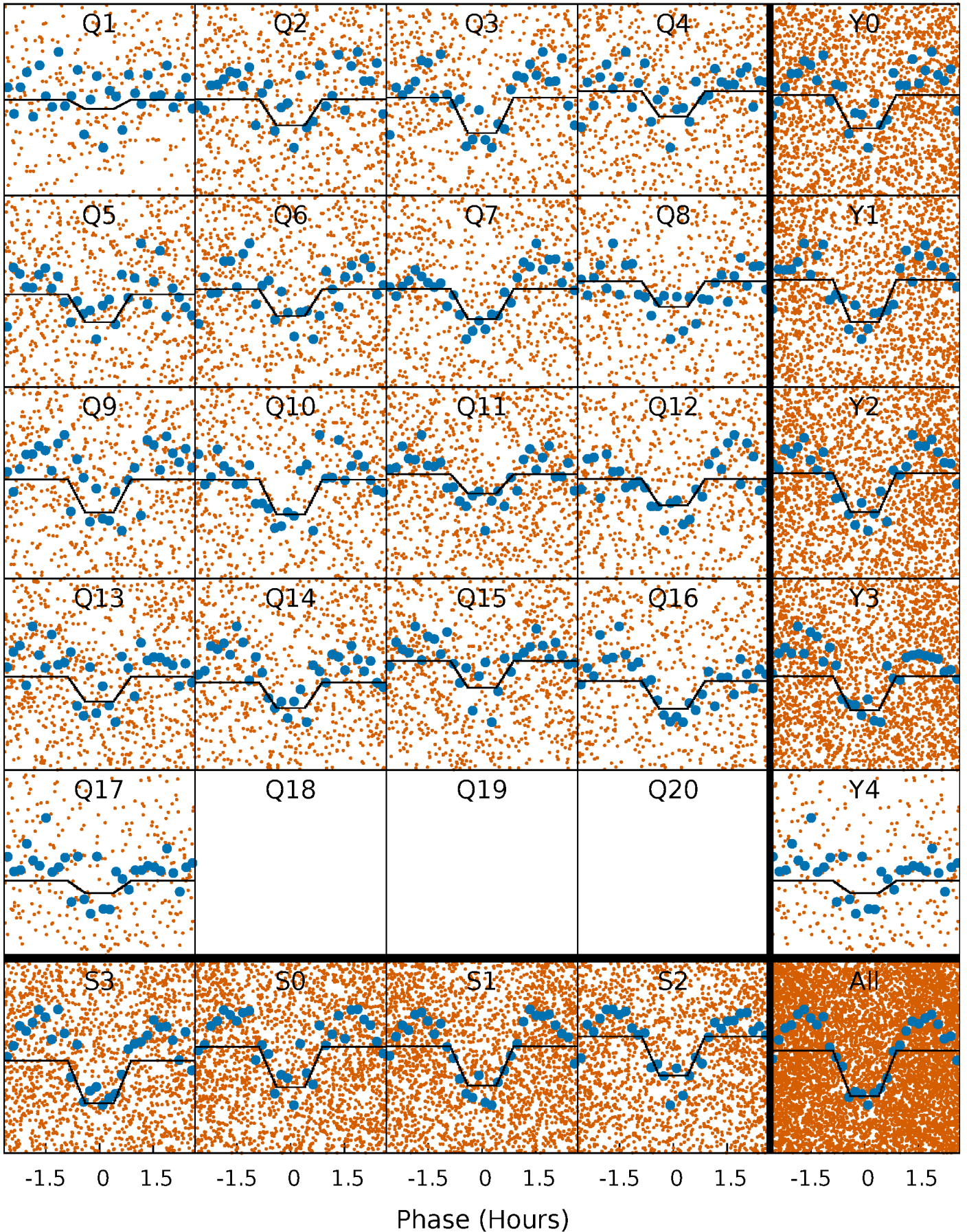
DV Quarter-Phased Transit Curves

TCE 002575952-01 P= 0.692109 Days $T_0=131.905726$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

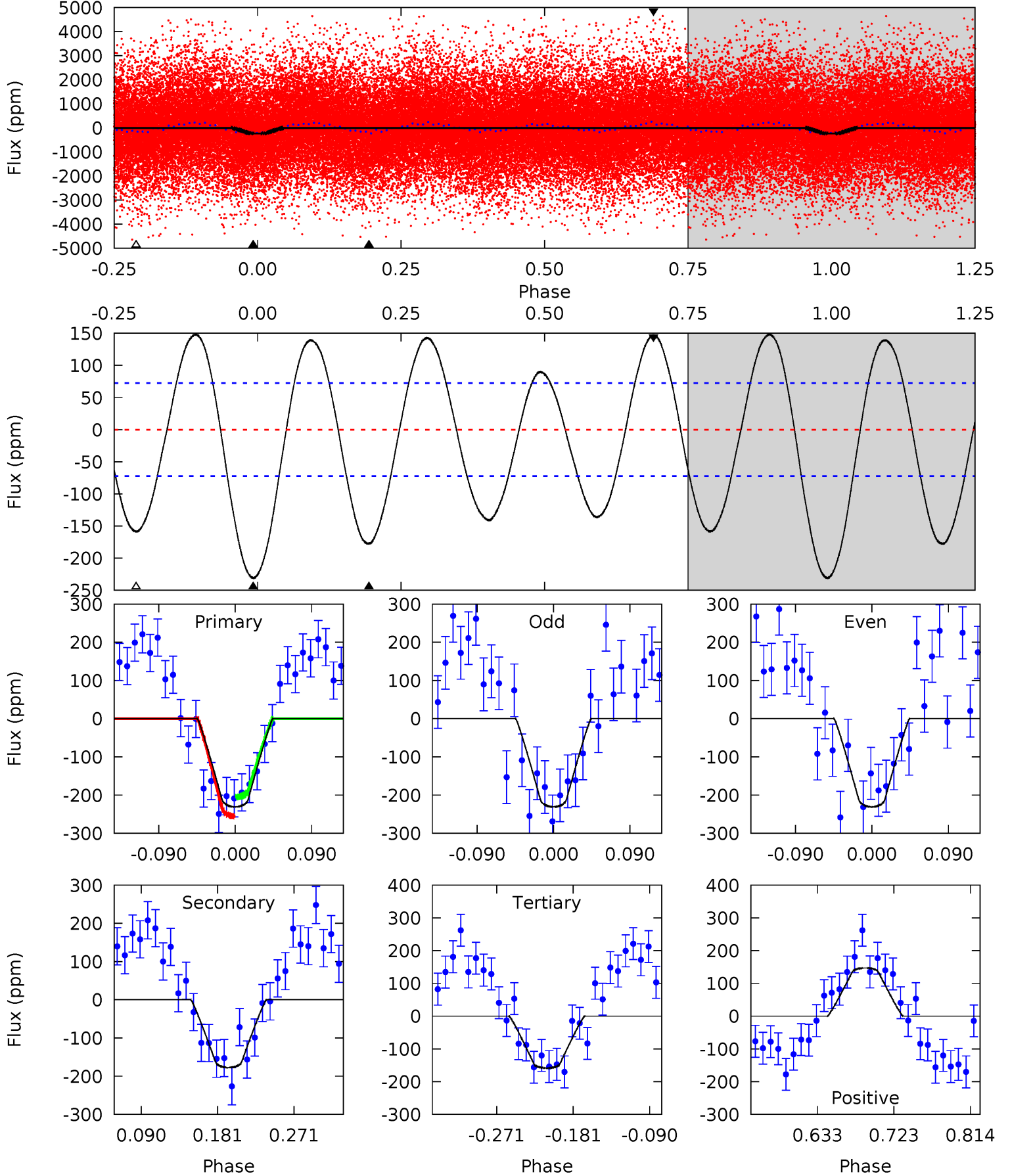
TCE 002575952-01 P= 0.692103 Days $T_0=131.905024$ (BKJD)



DV Model-Shift Uniqueness Test

002575952-01, P = 0.692109 Days, E = 131.213617 Days

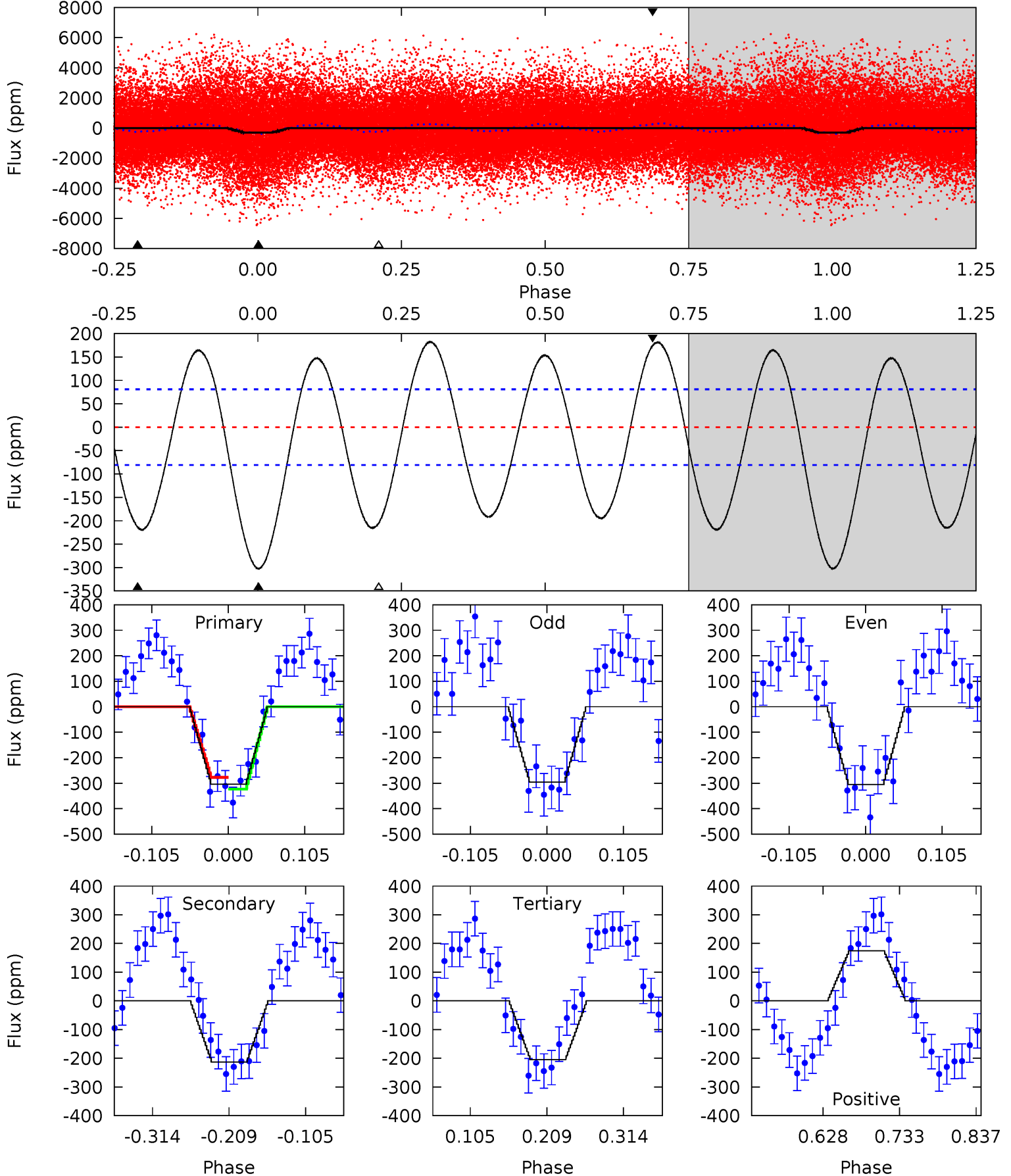
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.6	11.2	10.1	9.32	4.59	1.69	6.42	4.57	5.31	1.19	1.93	0.00	1.08	0.39	1.61



Alt Model-Shift Uniqueness Test

002575952-01, P = 0.692103 Days, E = 131.212921 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.1	12.0	11.5	9.81	4.56	1.62	7.35	5.56	7.29	0.48	2.21	0.28	1.03	0.38	1.31



Stellar Parameters For KIC 002575952

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7580^{+211}_{-316}	$4.093^{+0.120}_{-0.180}$	$0.080^{+0.200}_{-0.350}$	$1.949^{+0.549}_{-0.366}$	$1.717^{+0.204}_{-0.272}$	$0.327^{+0.232}_{-0.159}$
	+3%/-4%	+3%/-4%	+250%/-438%	+28%/-19%	+12%/-16%	+71%/-49%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 002575952-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-178 ± 16	$2.53^{+1.04}_{-0.88}$	4857^{+333}_{-310}	7959^{+2736}_{-1425}	$5.098^{+6.489}_{-2.559}$
Alt.	-213 ± 18	$3.77^{+1.11}_{-0.90}$	4832^{+361}_{-306}	6577^{+1121}_{-831}	$2.700^{+1.919}_{-1.049}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

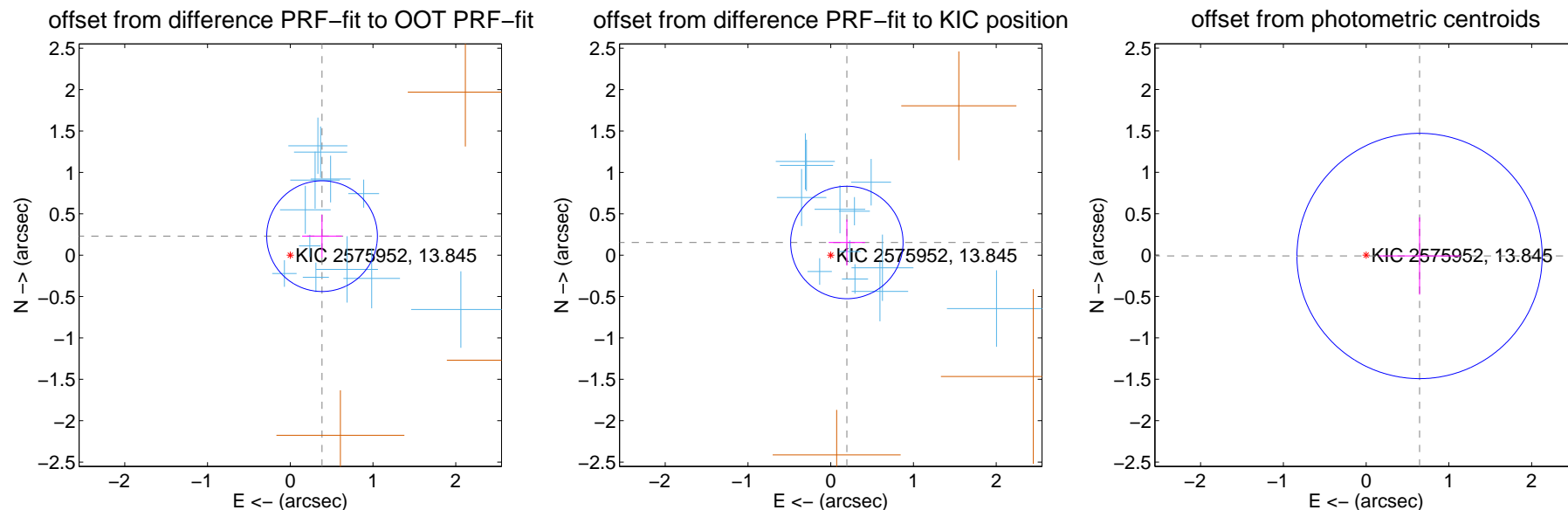
DV Centroid Data

Supplemental centroid analysis for 002575952-01. Kepler magnitude: 13.85. Transit SNR 9.09

There are 12 quarters with good PRF difference image offsets

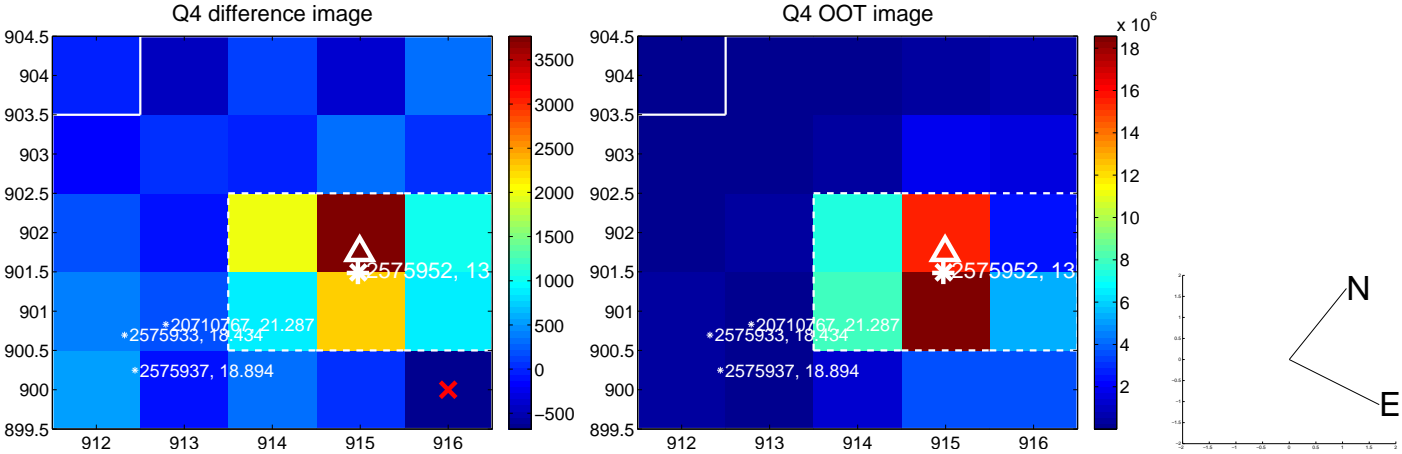
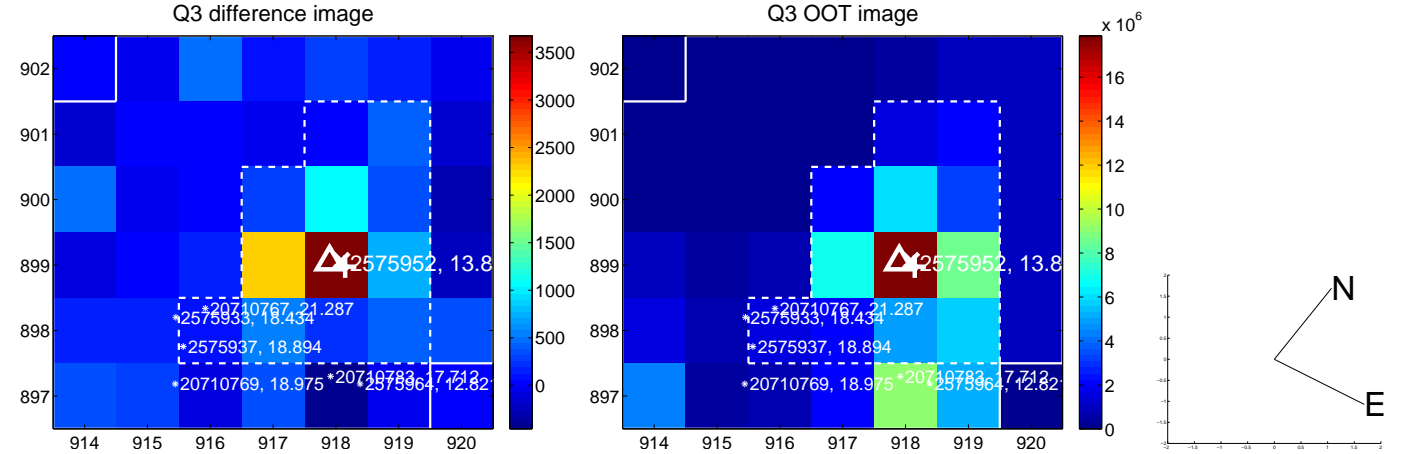
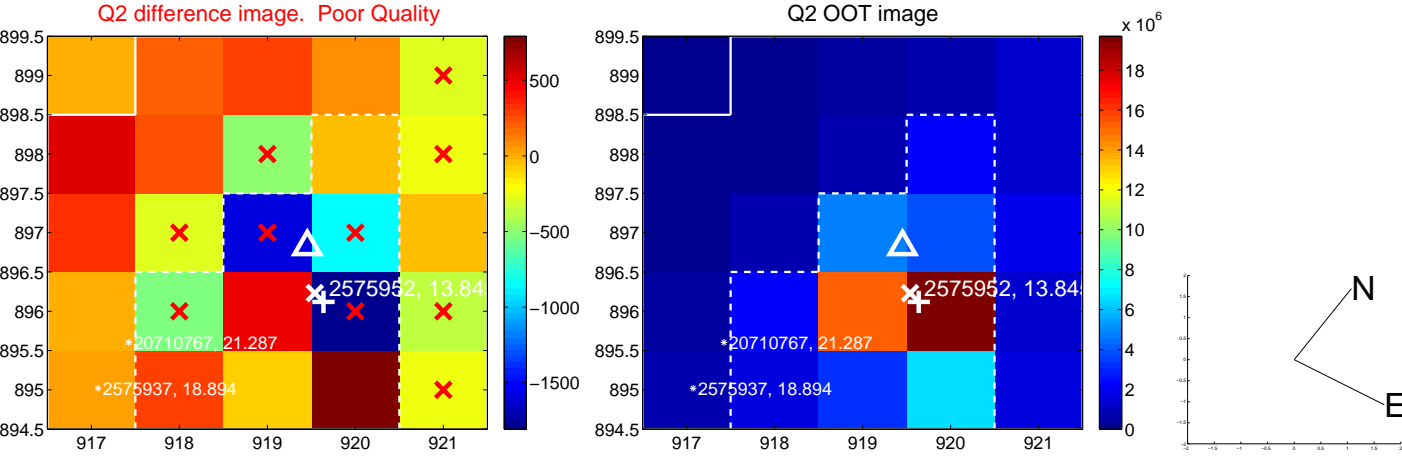
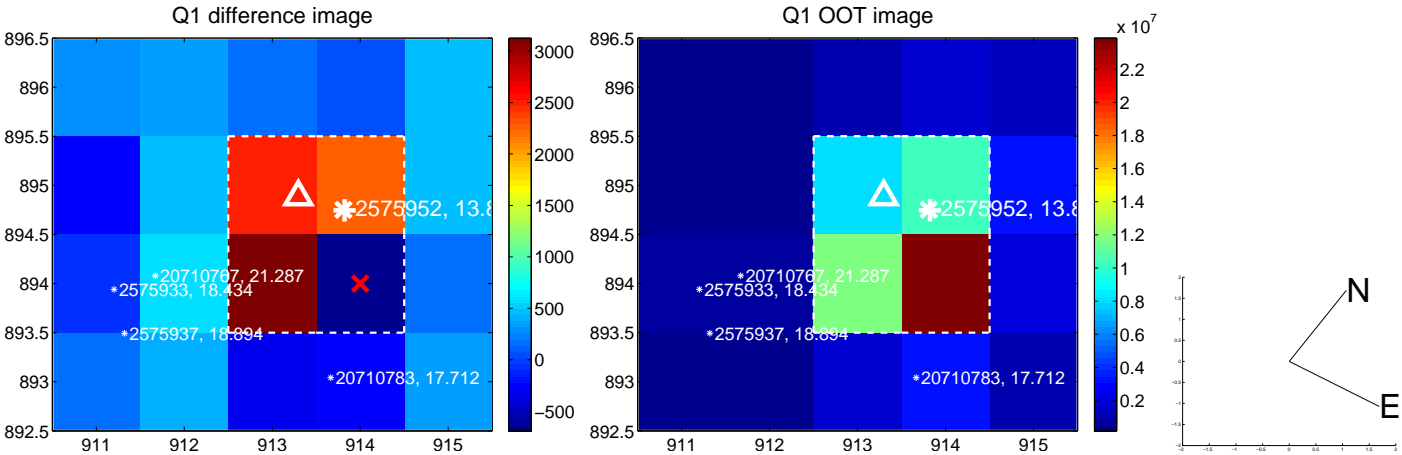
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.447 ± 0.223	2.01	-0.384 ± 0.241	0.230 ± 0.259
PRF-fit source offset from KIC position	0.248 ± 0.226	1.10	-0.195 ± 0.220	0.153 ± 0.278
photometric centroid source offset	0.65 ± 0.49	1.31	-0.65 ± 0.49	-0.01 ± 0.47

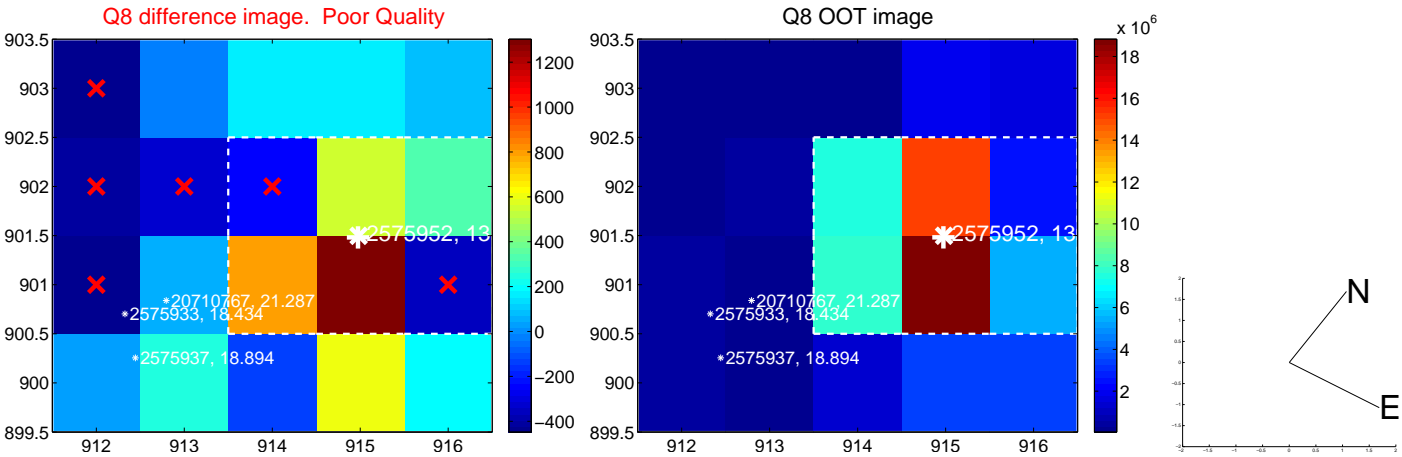
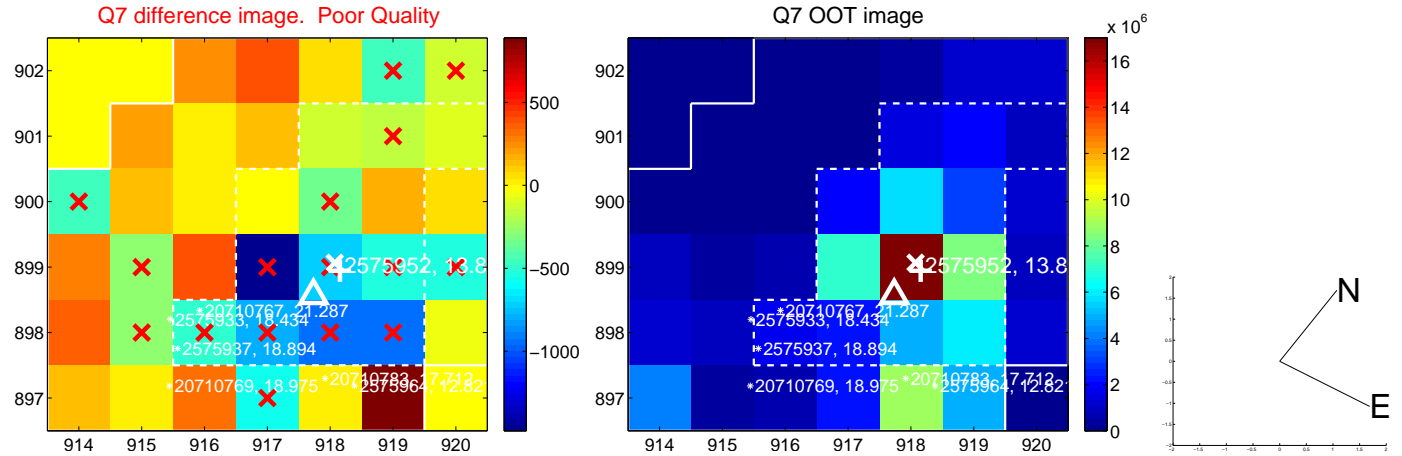
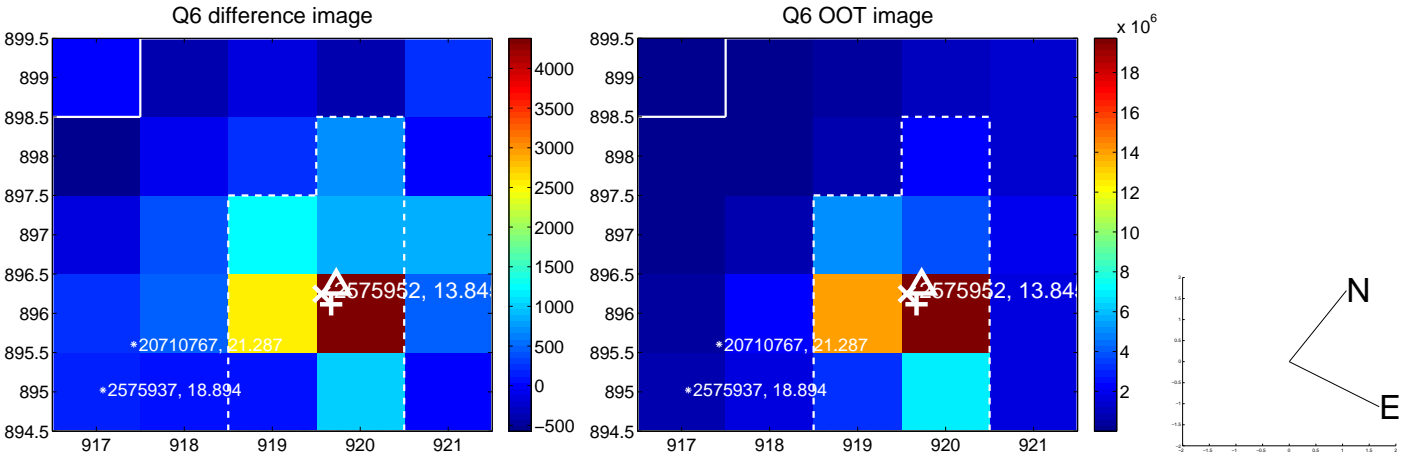
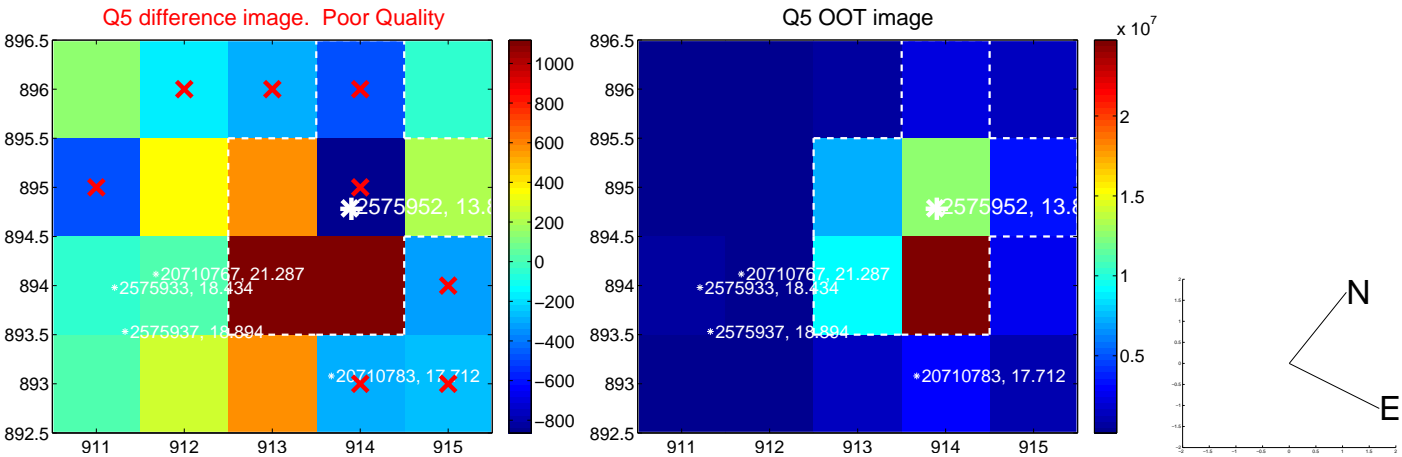


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

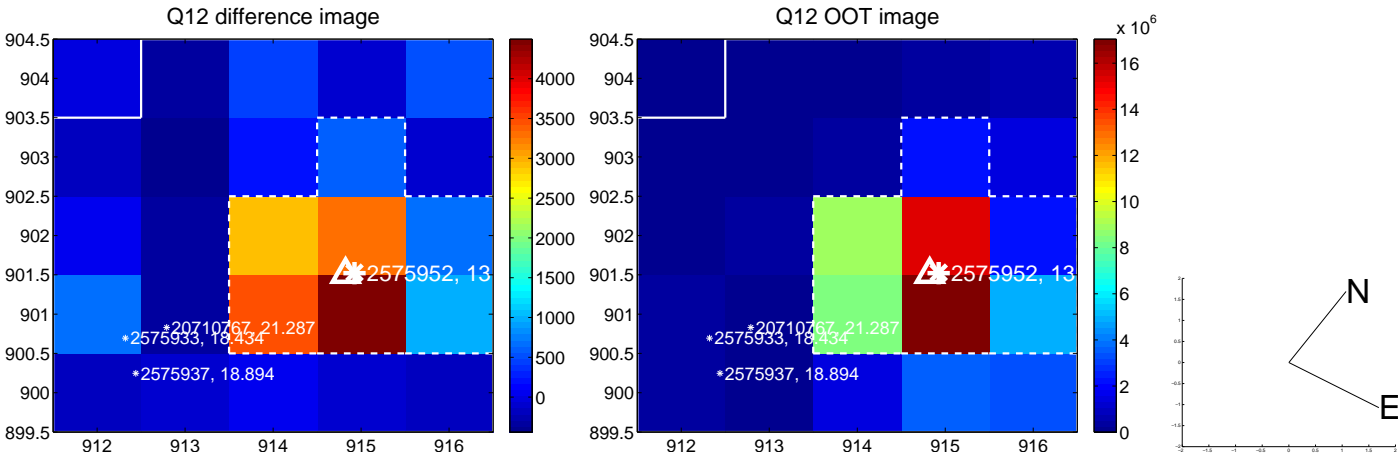
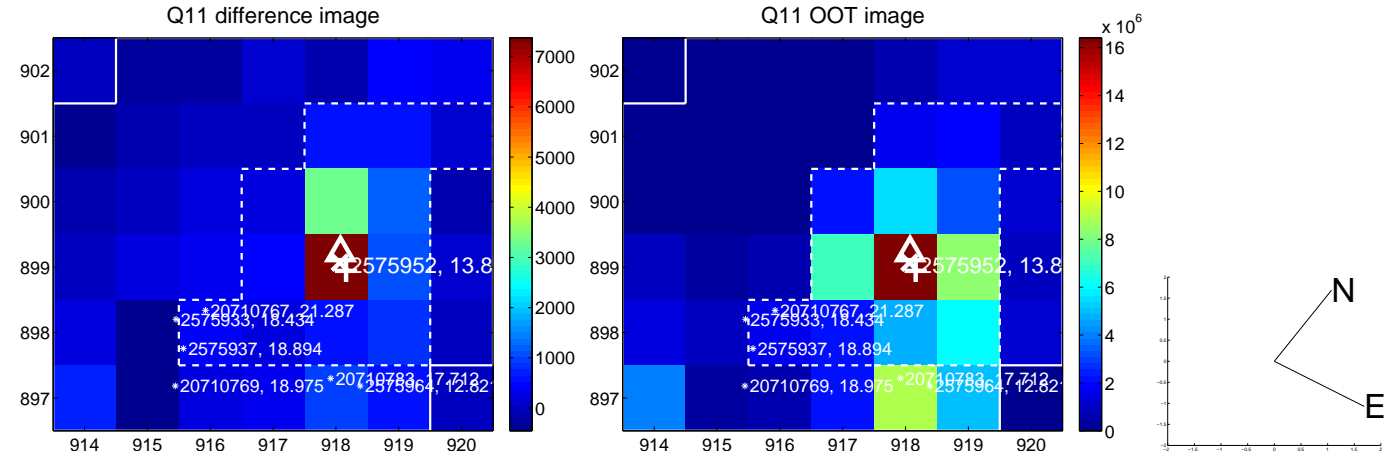
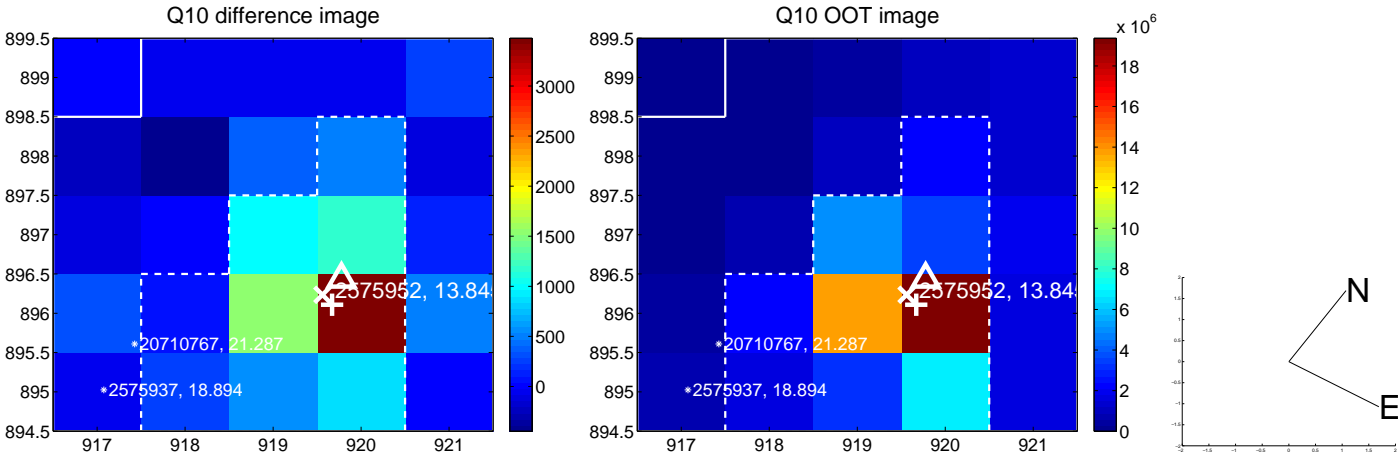
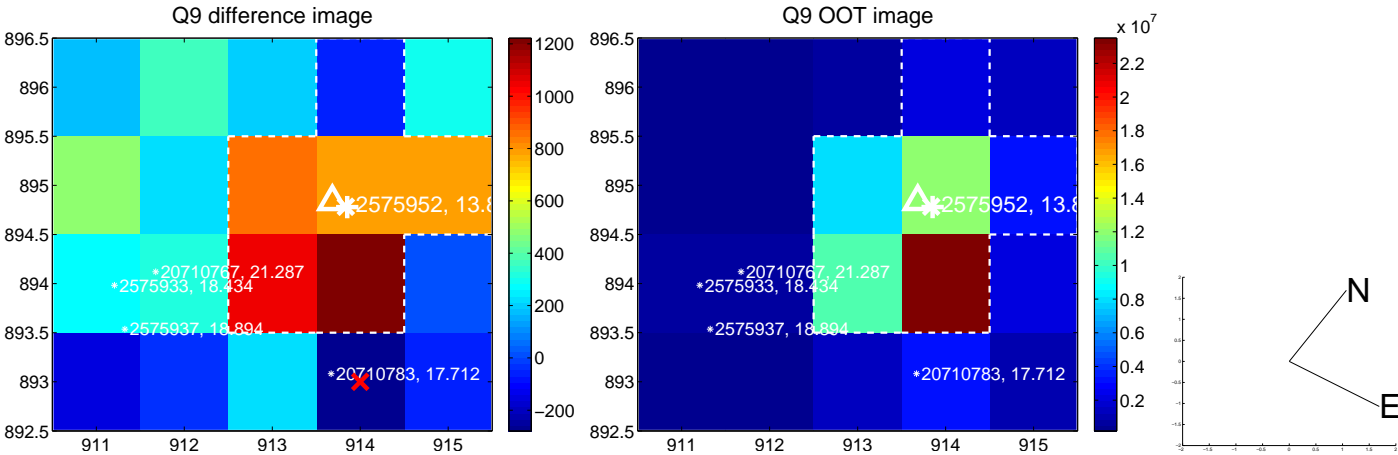
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



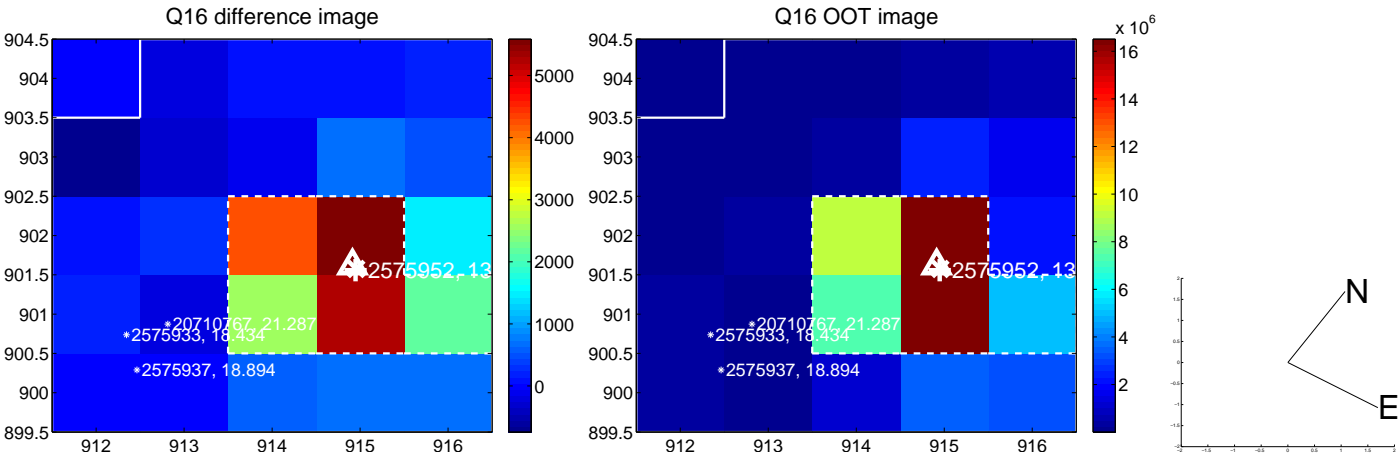
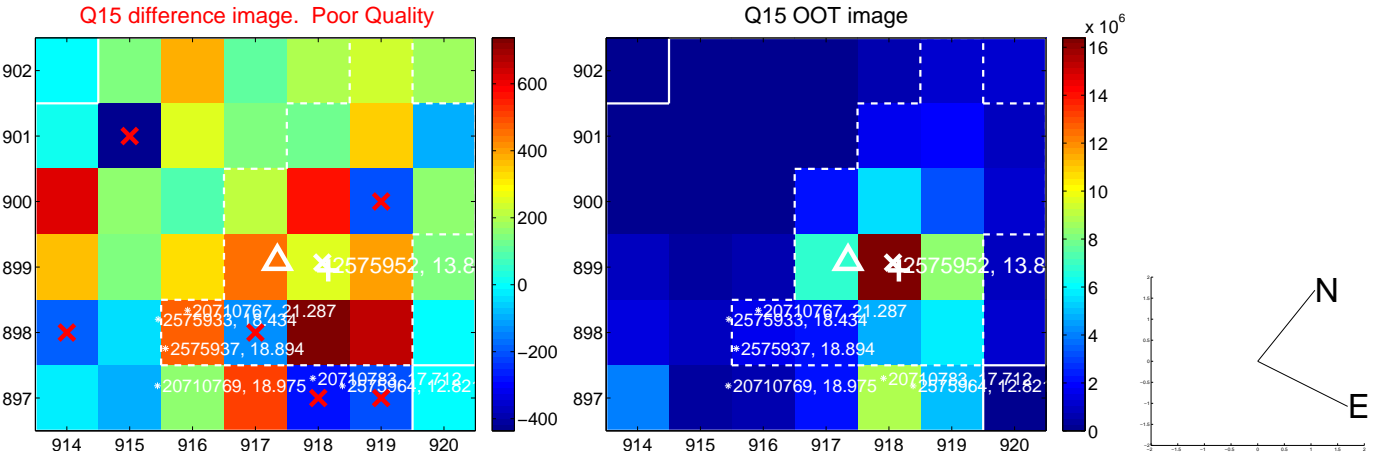
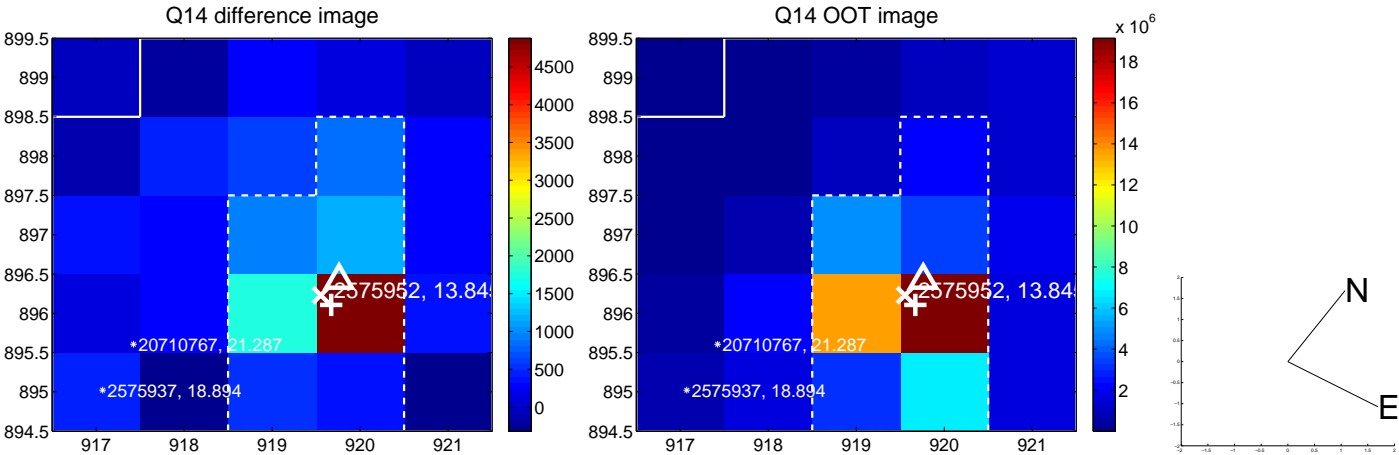
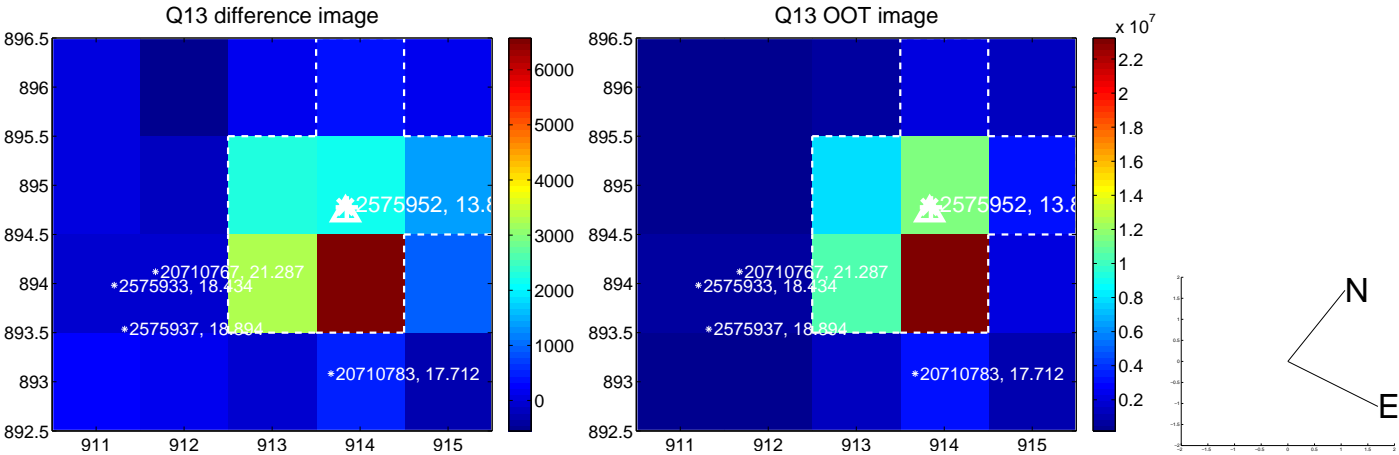
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



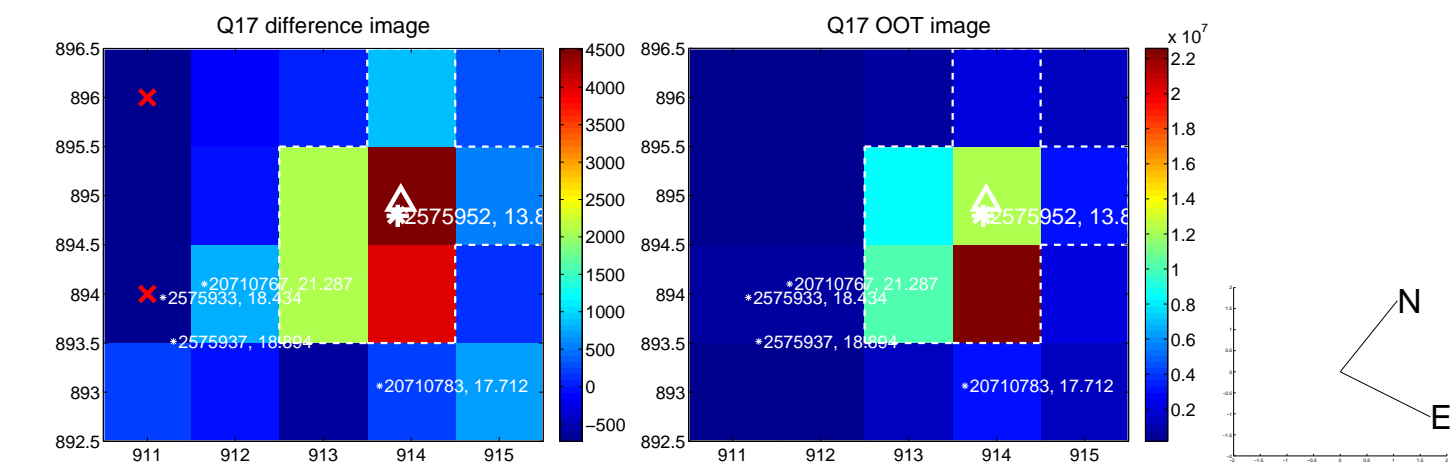
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



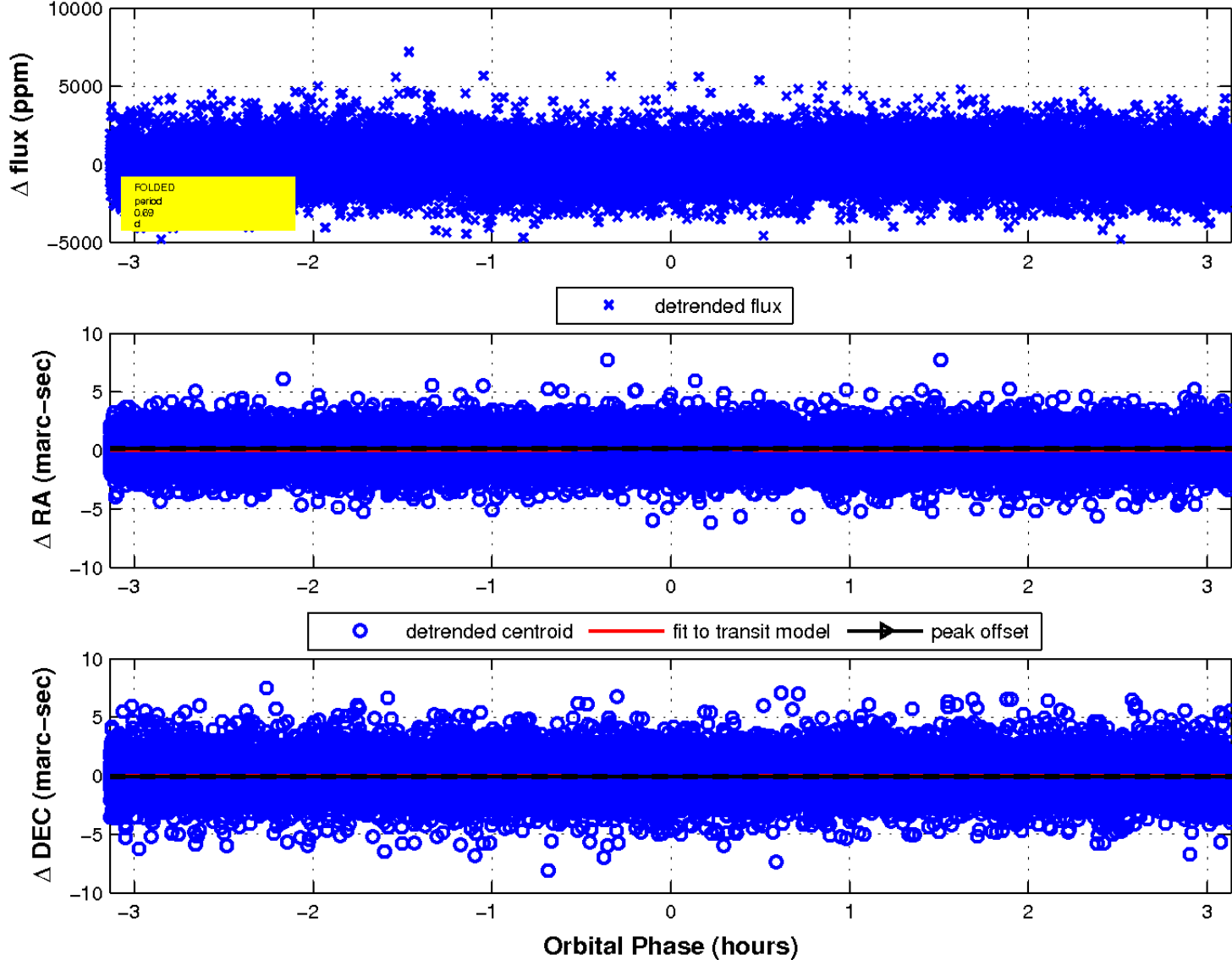
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

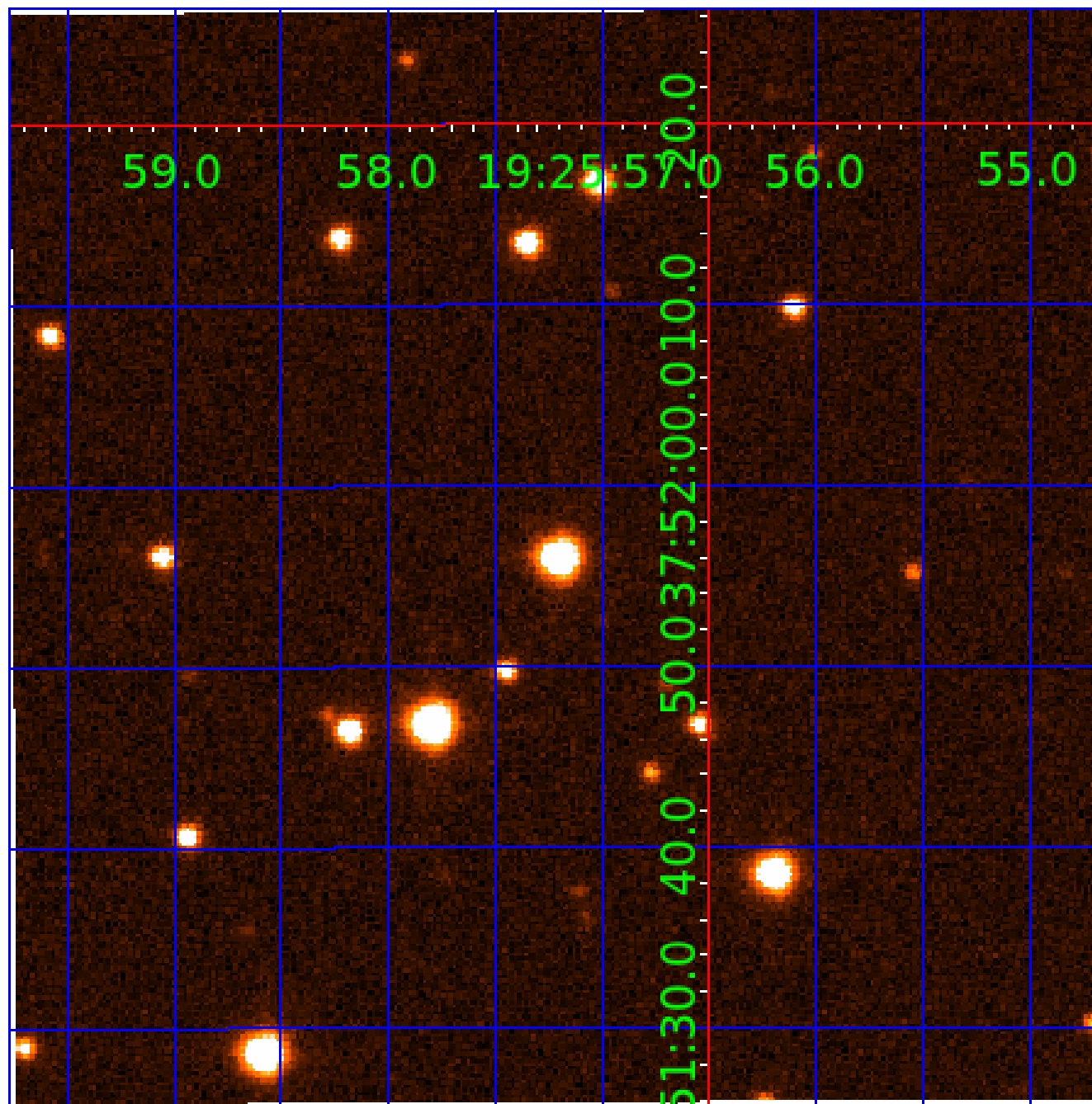


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 002575952

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
002575952-01	OBS	No	0.692109	131.905726	121.4	1.045	7.5	9.1	1.95	7580	2.50	33410.26
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002575952-03	OBS	No	114.711157	155.827082	1366.1	5.165	9.1	5.4	1.95	7580	7.77	36.70

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002575952-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
002575952-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—MOD_NONUNIQ_DV
002575952-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

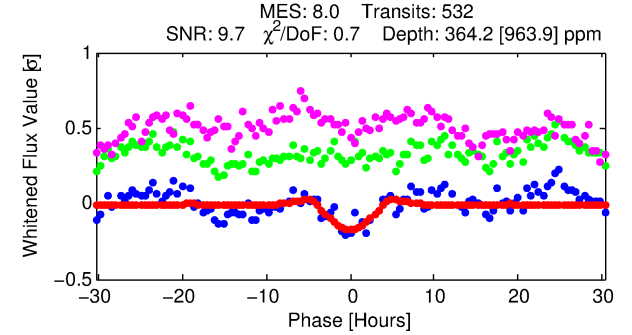
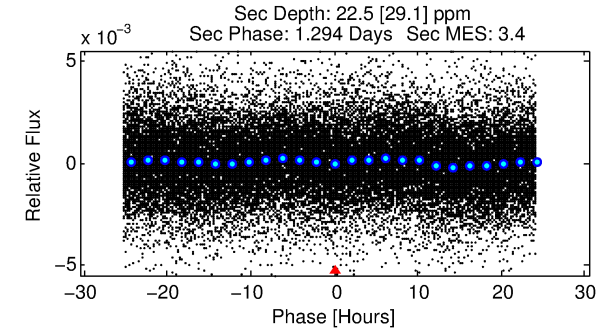
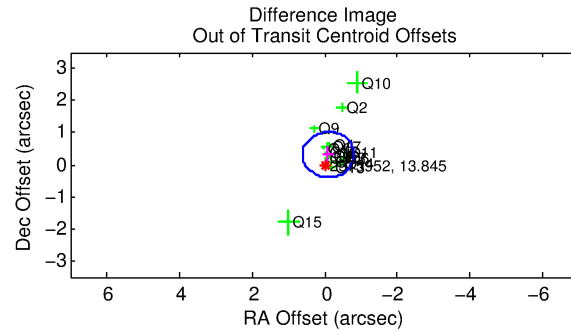
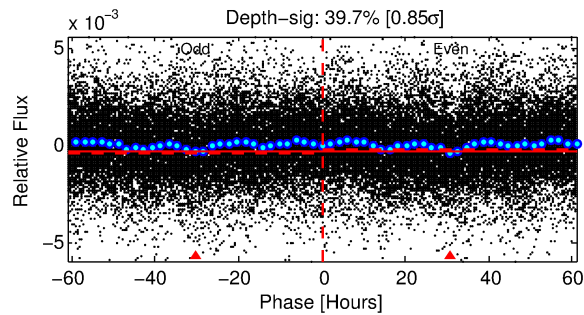
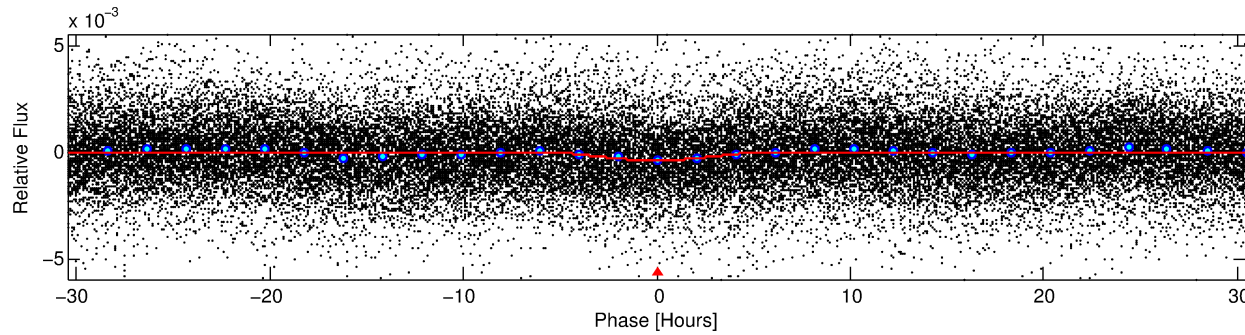
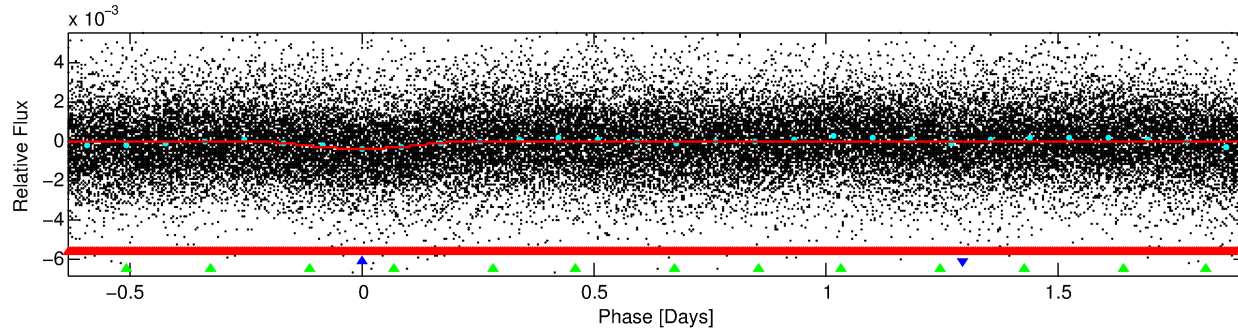
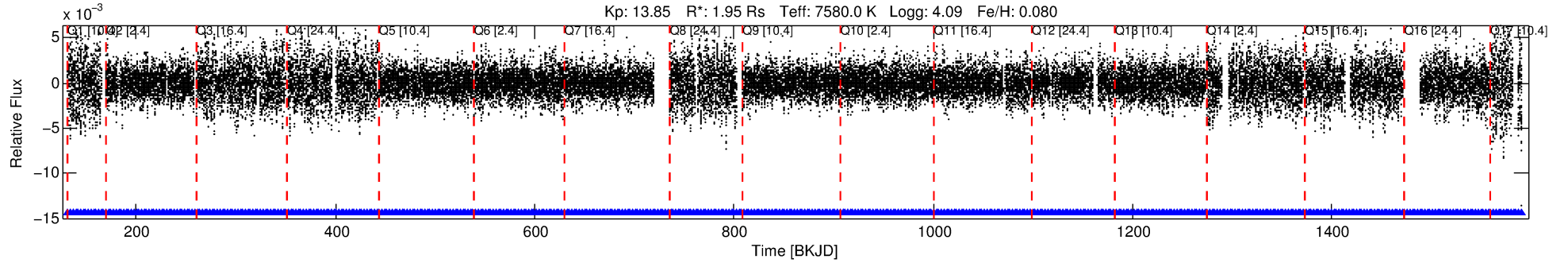
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002575952-02

No Significant Match Found

DV One-Page Summary

KIC: 2575952 Candidate: 2 of 3 Period: 2.540 d



DV Fit Results:

Period = 2.54039 [0.00006] d
Epoch = 131.9299 [0.0180] BKJD
Rp/R* = 0.0332 [0.0779]
a/R* = 1.13 [0.04]
b = 1.00 [0.17]
Seff = 5900.80 [2203.29]
Teff = 2235 [209] K
Rp = 7.06 [16.69] Re
a = 0.0436 [0.0102] AU
Ag = 0.47 [2.31] [-0.23 σ]
Teffp = 2865 [3491] K [0.18 σ]

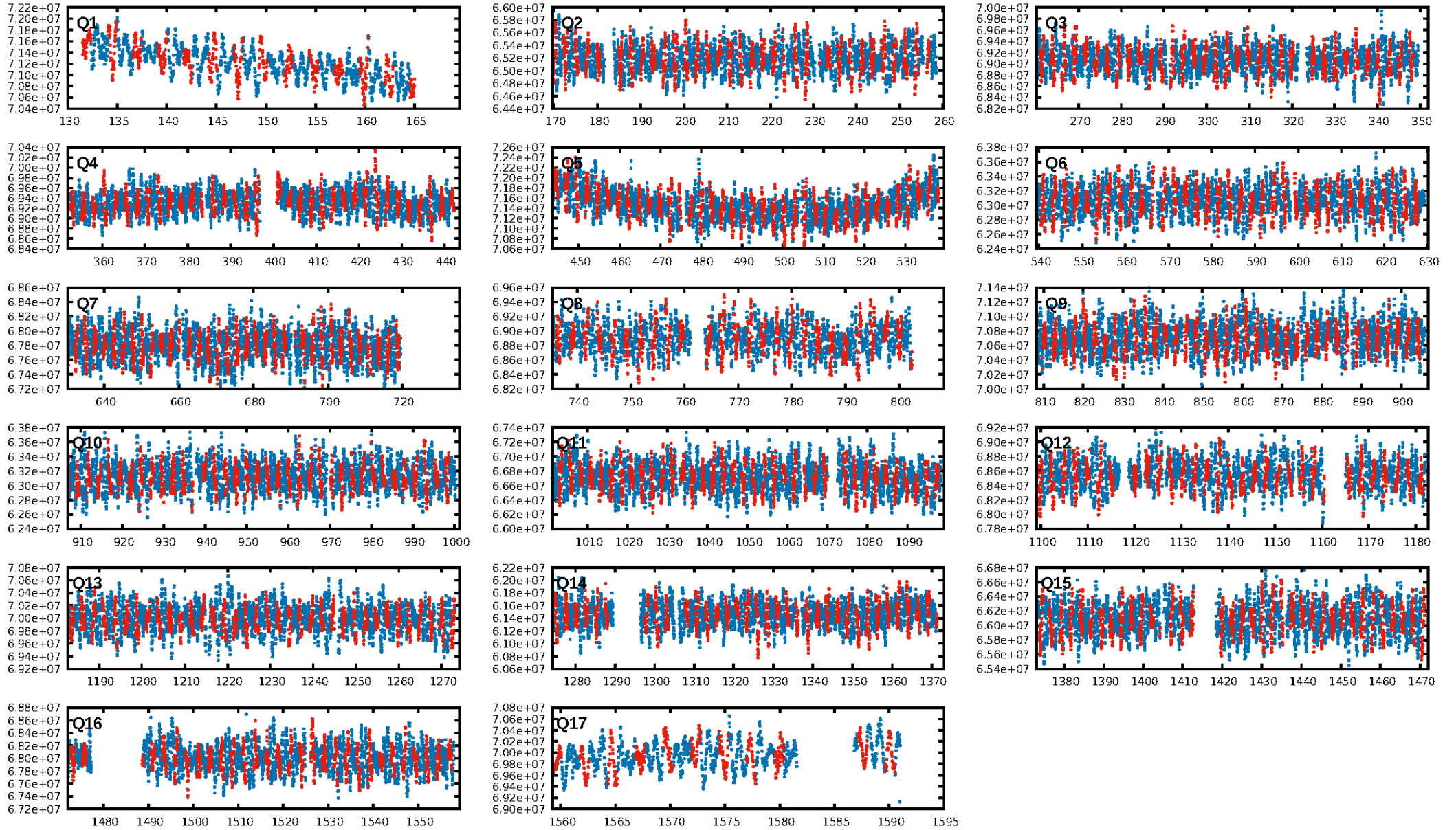
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [4.34 σ]
LongPeriod-sig: 100.0% [236.19 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.88e-12
RollingBand-fgt: 1.00 [507/507]
GhostDiagnostic-chr: 1.959
Centroid-sig: 0.0%
Centroid-so: 0.500 arcsec [2.74 σ]
OotOffset-rm: 0.326 arcsec [1.38 σ]
KicOffset-rm: 0.250 arcsec [1.03 σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-st: 4/4/3/5 [16]
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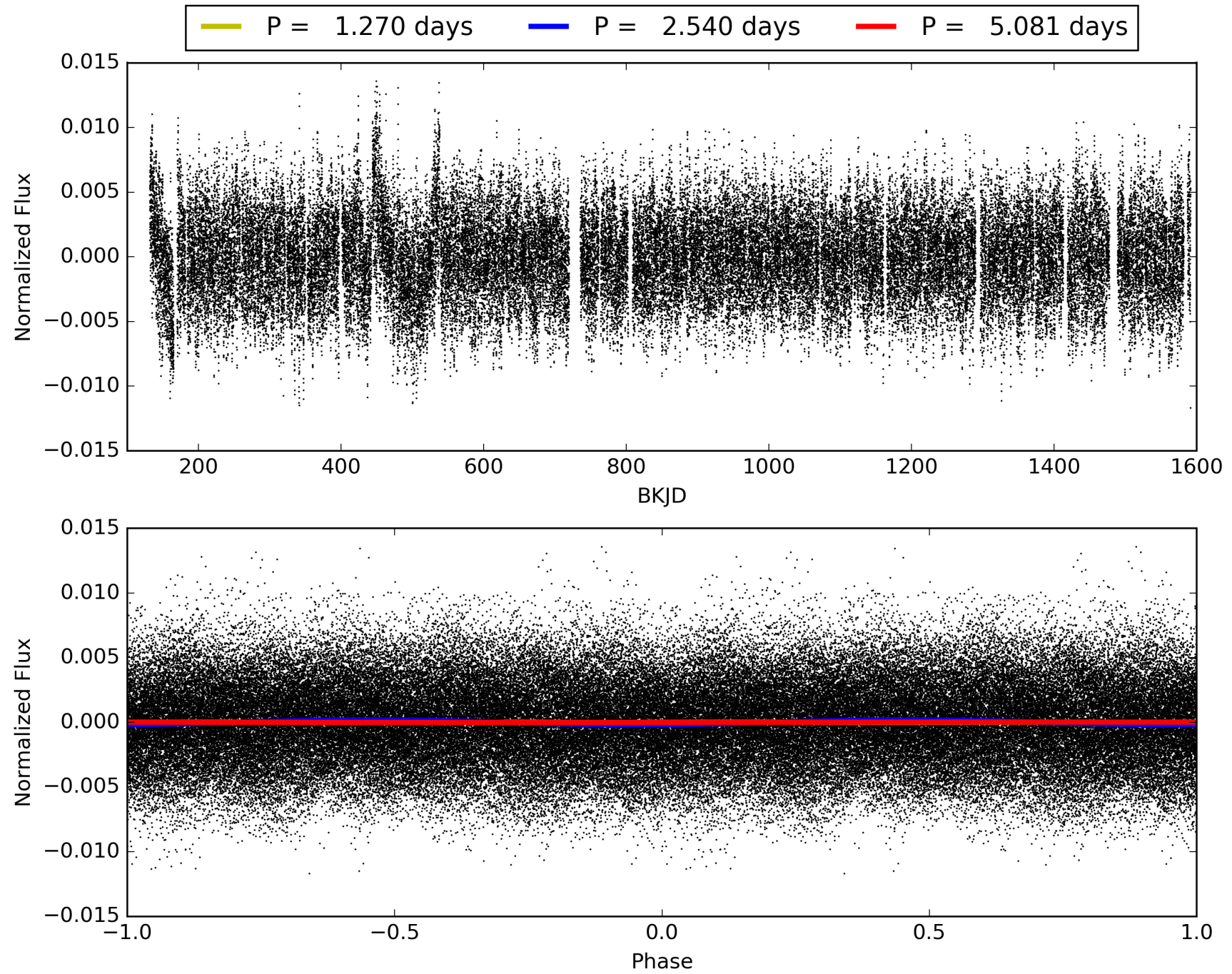
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 15:48:00 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 002575952-02, PDC Light Curves

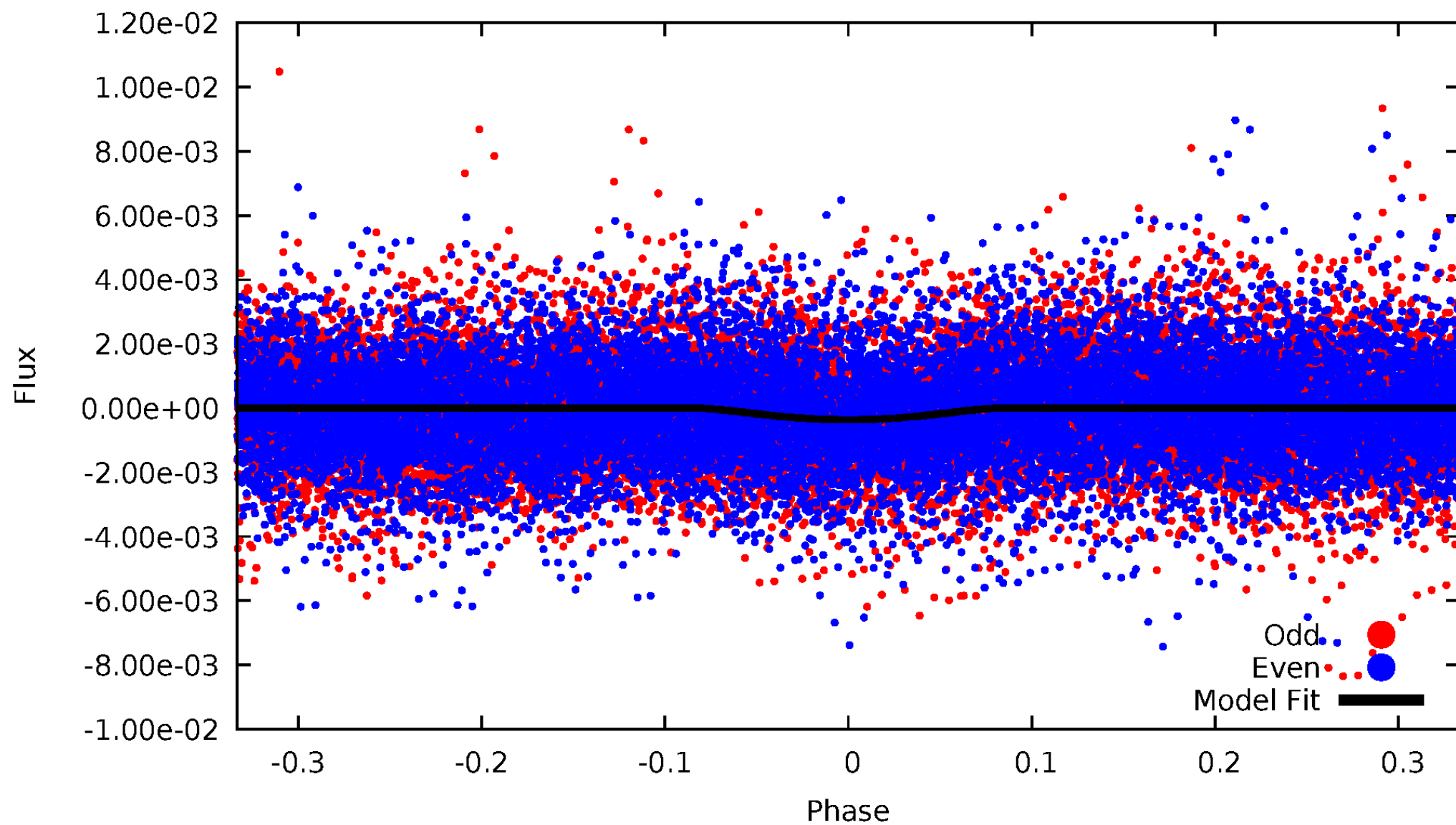


TCE 002575952-02



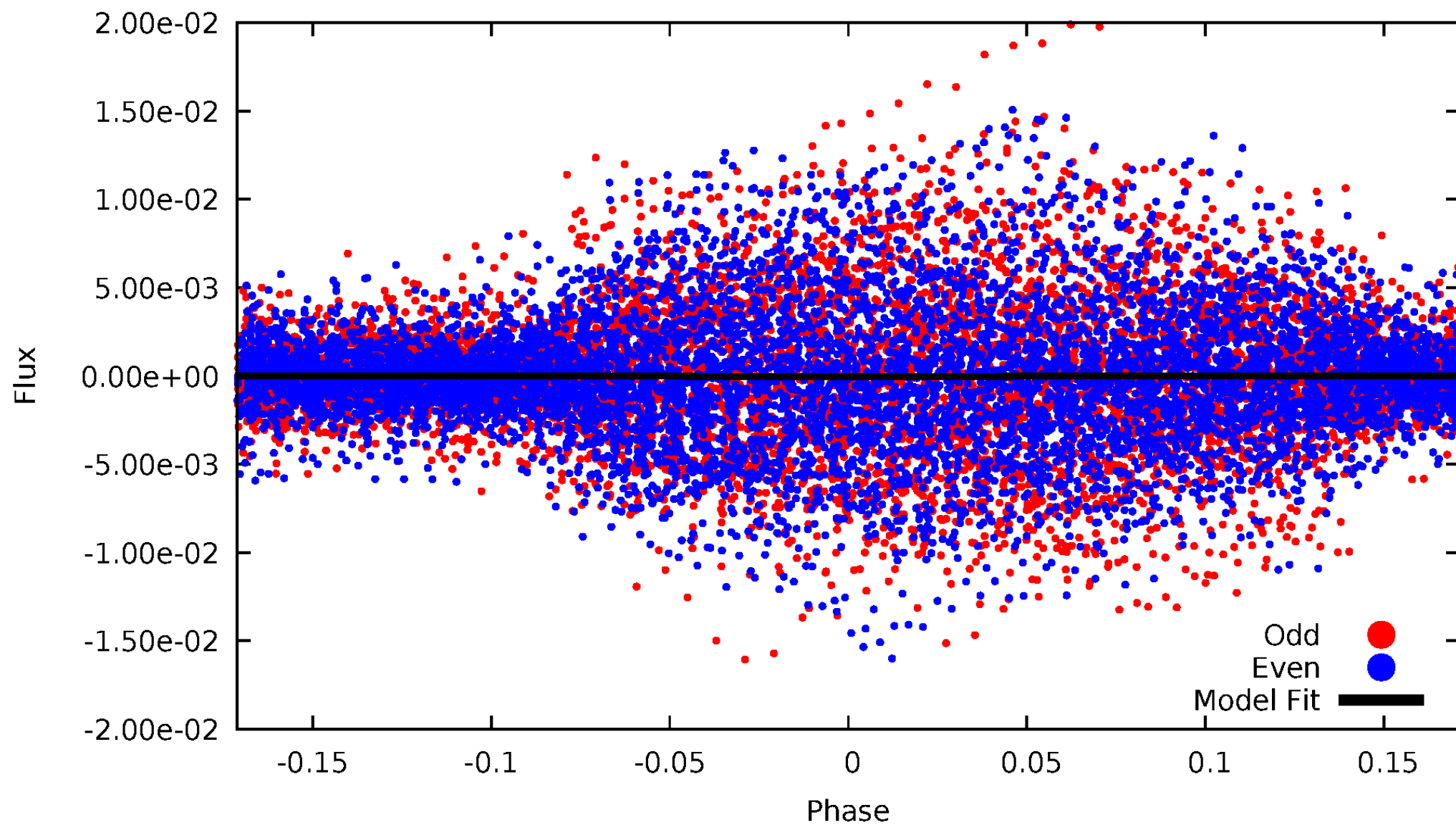
DV Odd/Even

TCE 002575952-02



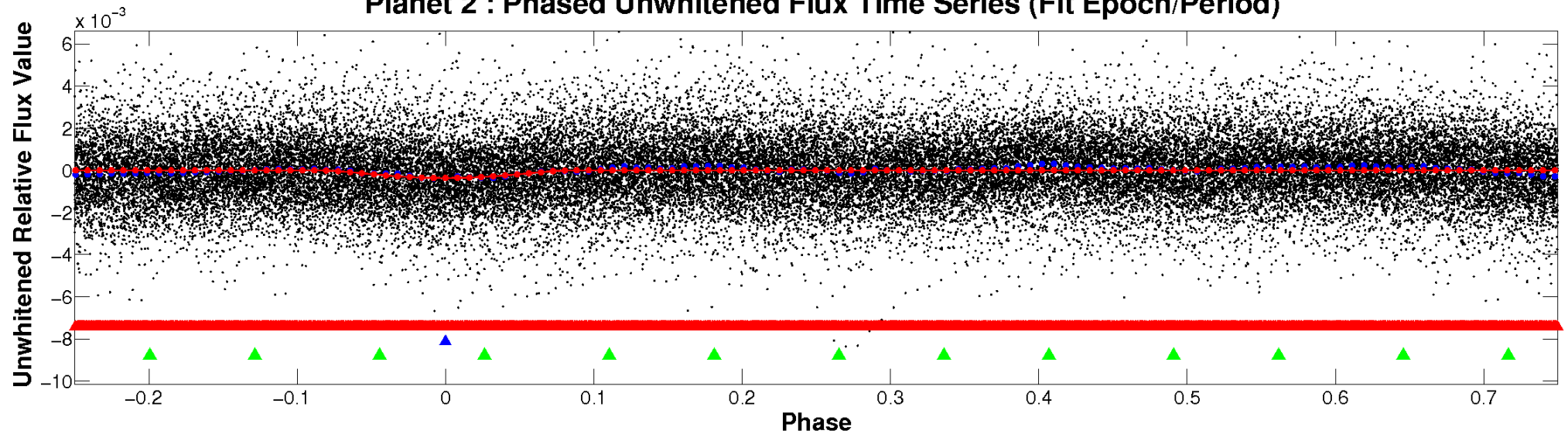
ALT Odd/Even

TCE 002575952-02

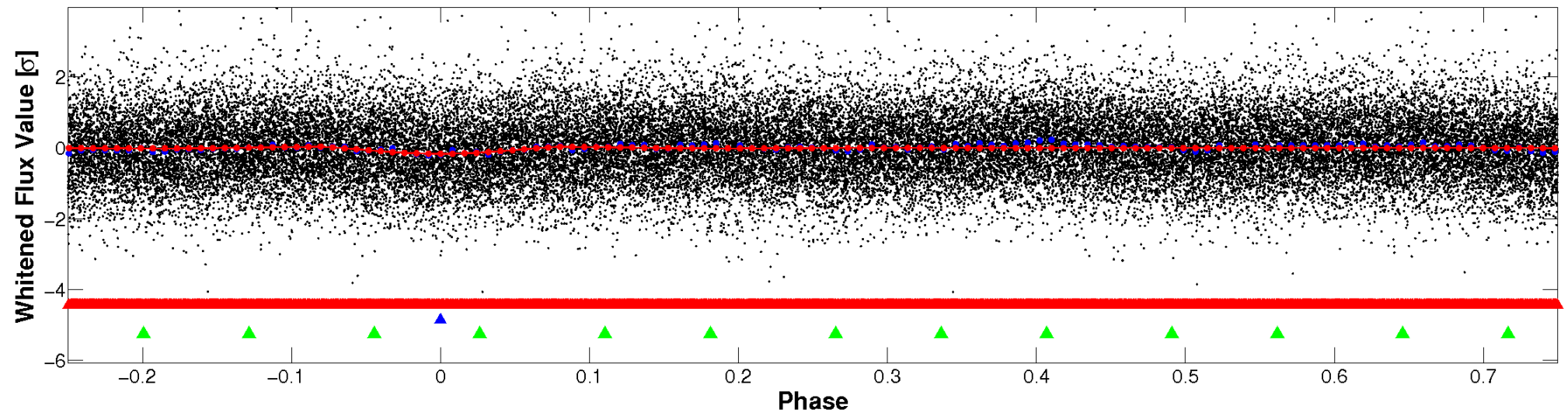


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

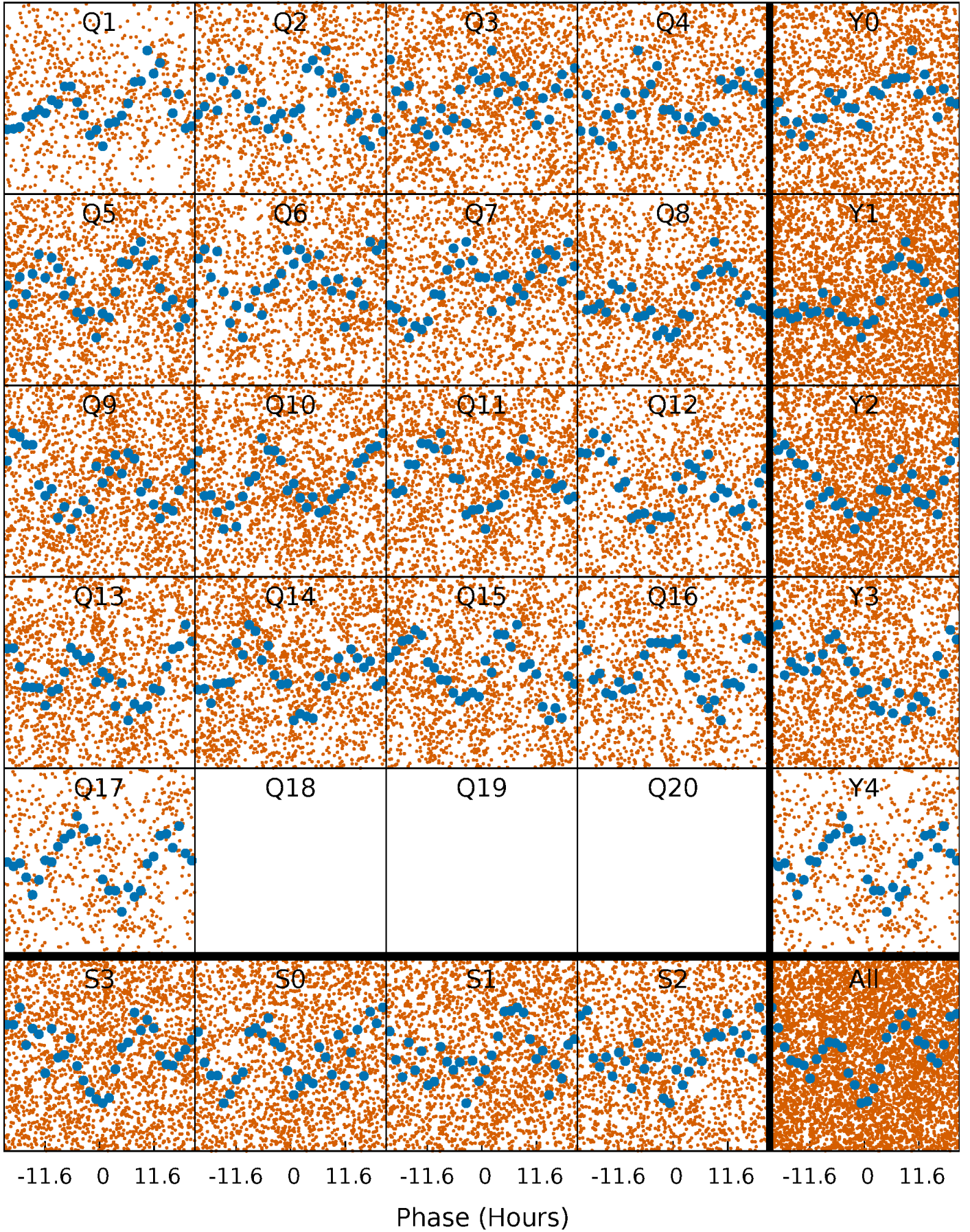


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



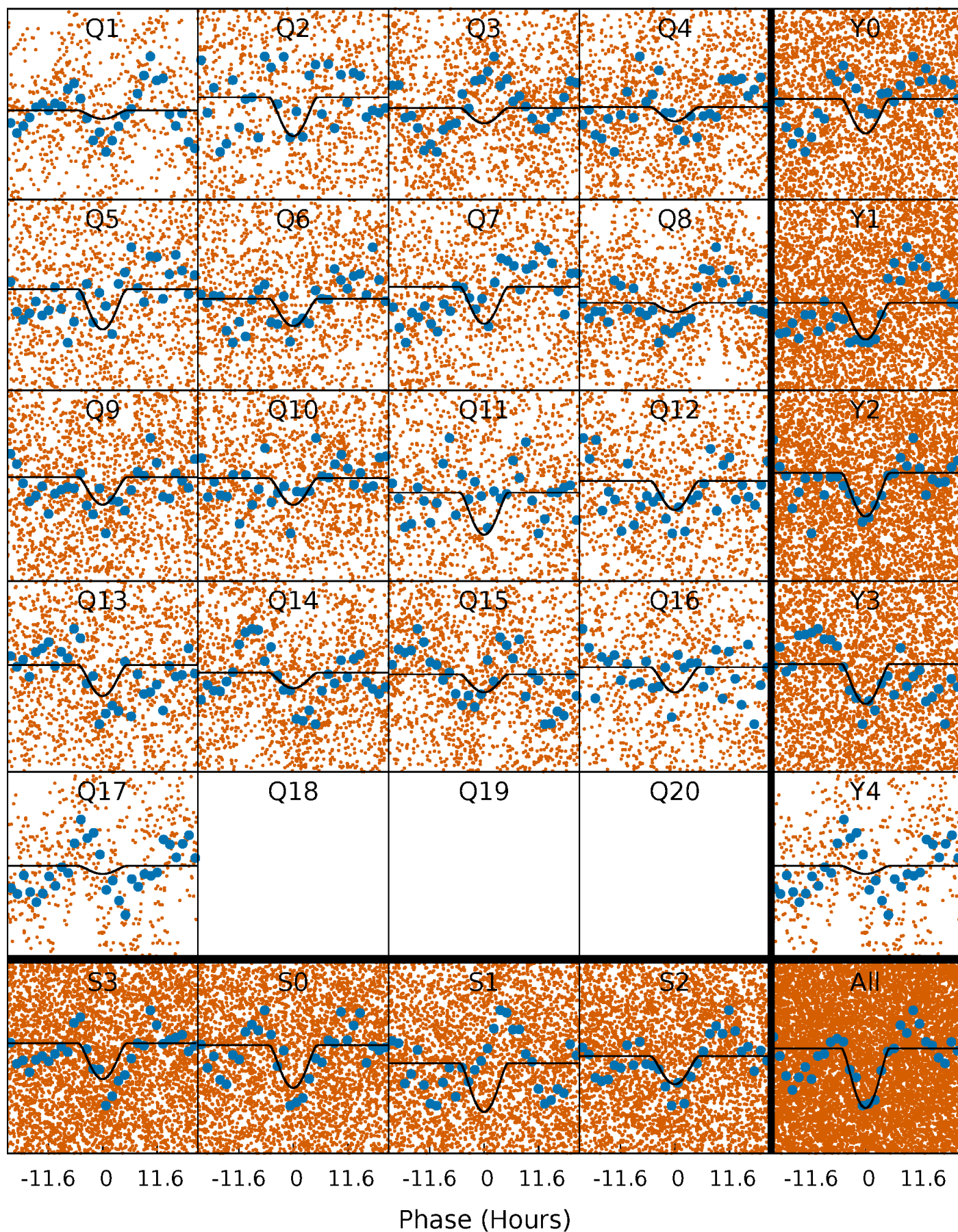
PDC Quarter-Phased Transit Curves

TCE 002575952-02 P= 2.540394 Days $T_0=131.929881$ (BKJD)



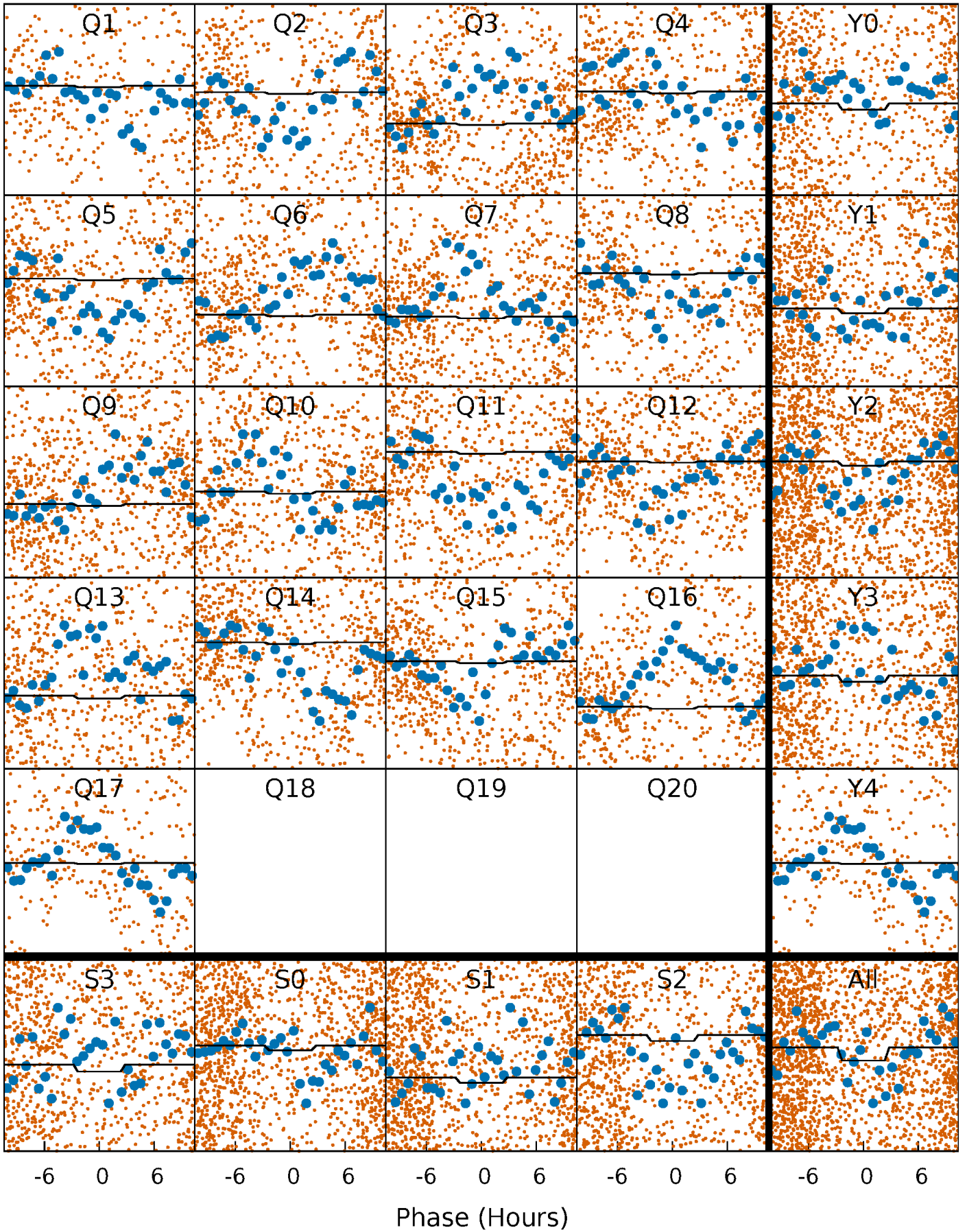
DV Quarter-Phased Transit Curves

TCE 002575952-02 P= 2.540394 Days $T_0=131.929881$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

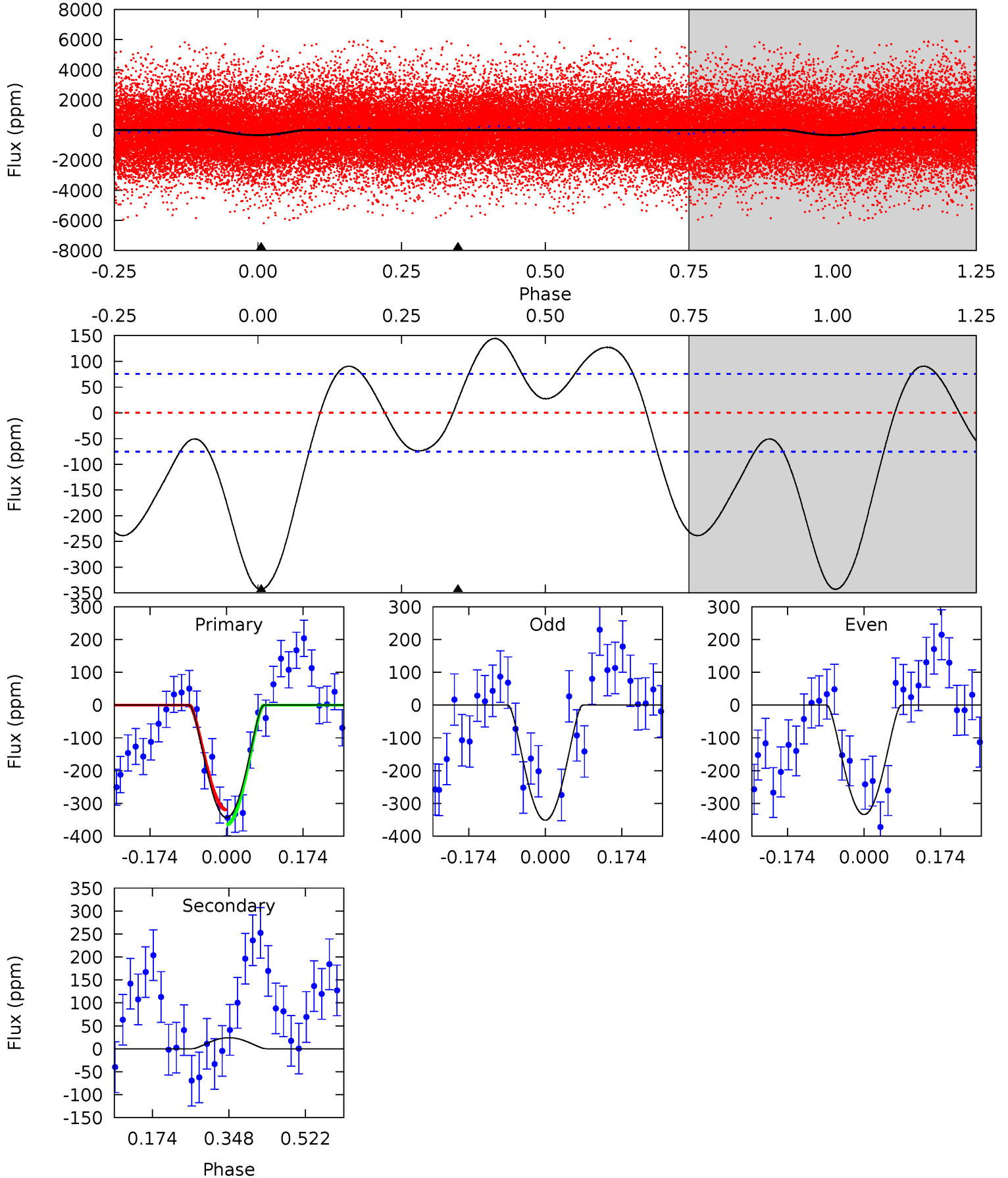
TCE 002575952-02 P= 2.540369 Days $T_0=131.862112$ (BKJD)



DV Model-Shift Uniqueness Test

002575952-02, P = 2.540394 Days, E = 129.389487 Days

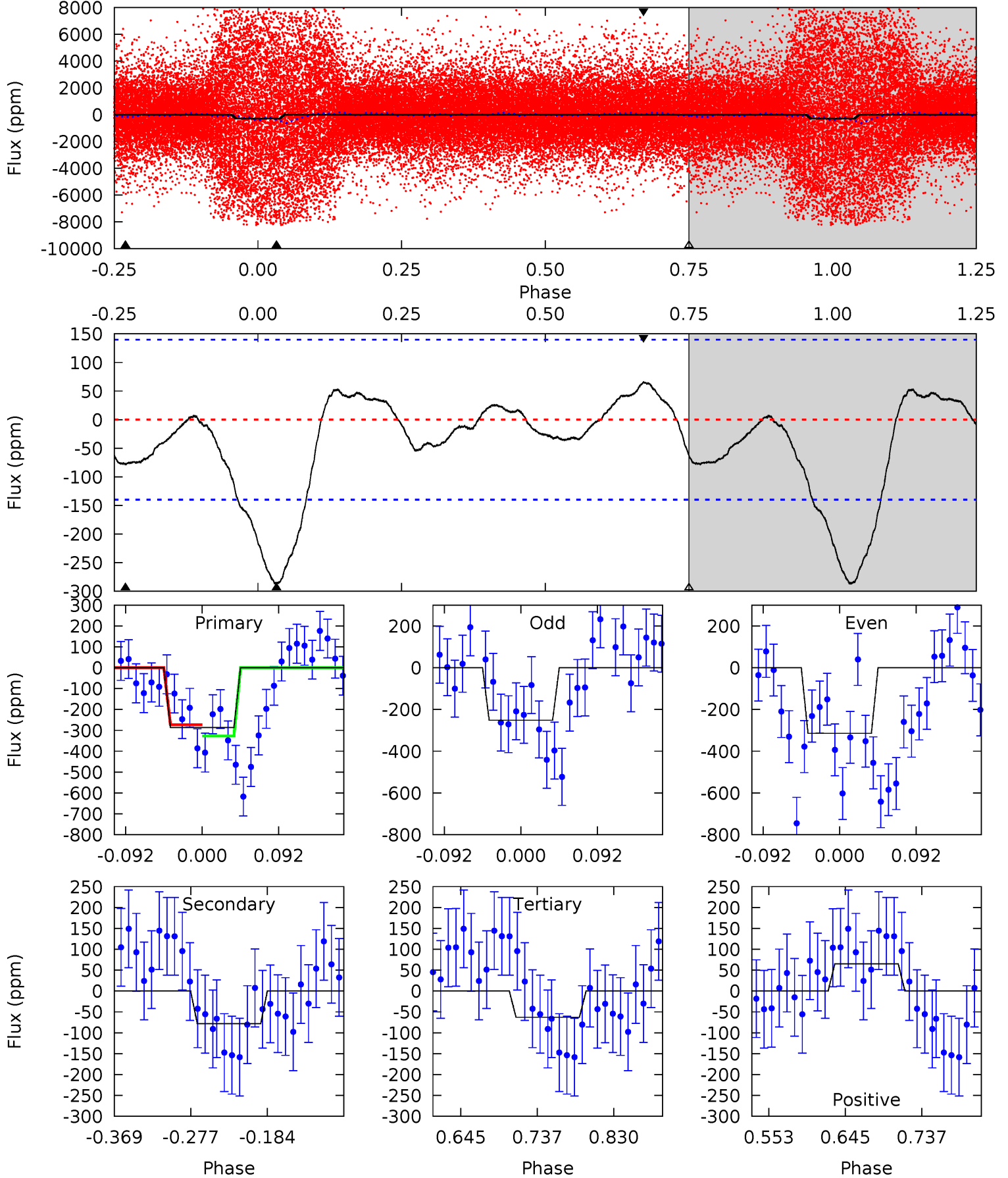
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.2	-1.42	0	0	4.45	1.36	8.27	20.2	20.2	-1.42	-1.42	0.51	1.23	0.30	1.30



Alt Model-Shift Uniqueness Test

002575952-02, P = 2.540369 Days, E = 129.321743 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.39	2.57	2.06	2.14	4.58	1.68	1.07	7.33	7.25	0.51	0.42	1.02	0.43	0.19	0



Stellar Parameters For KIC 002575952

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7580^{+211}_{-316}	$4.093^{+0.120}_{-0.180}$	$0.080^{+0.200}_{-0.350}$	$1.949^{+0.549}_{-0.366}$	$1.717^{+0.204}_{-0.272}$	$0.327^{+0.232}_{-0.159}$
	+3%/-4%	+3%/-4%	+250%/-438%	+28%/-19%	+12%/-16%	+71%/-49%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 002575952-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	24 ± 17	$14.52^{+13.31}_{-10.25}$	3135^{+237}_{-189}	-3334^{+194}_{-744}	$-0.103^{+0.089}_{-1.129}$
Alt.	-78 ± 30	$12.08^{+13.42}_{-8.41}$	3122^{+228}_{-186}	3025^{+2189}_{-5972}	$0.546^{+5.385}_{-0.440}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

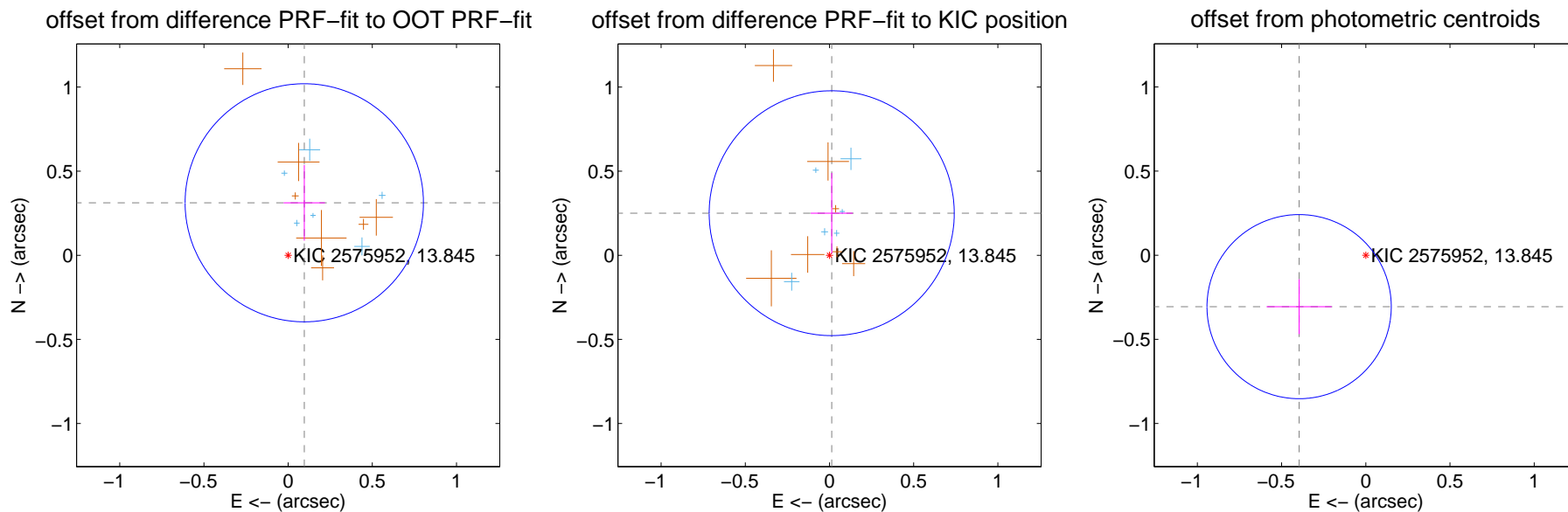
DV Centroid Data

Supplemental centroid analysis for 002575952-02. Kepler magnitude: 13.85. Transit SNR 9.67

There are 7 quarters with good PRF difference image offsets

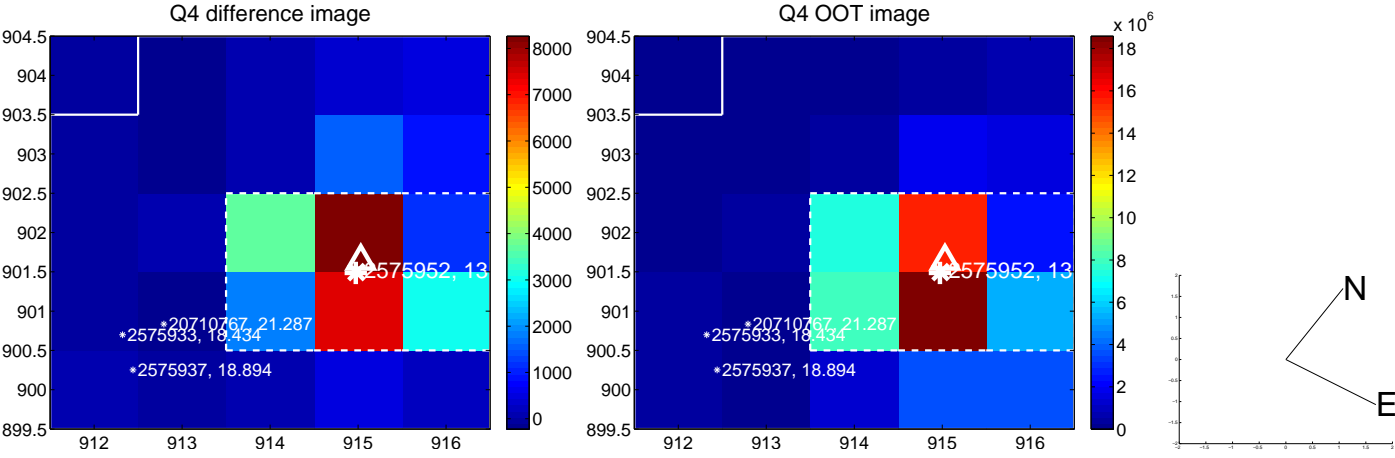
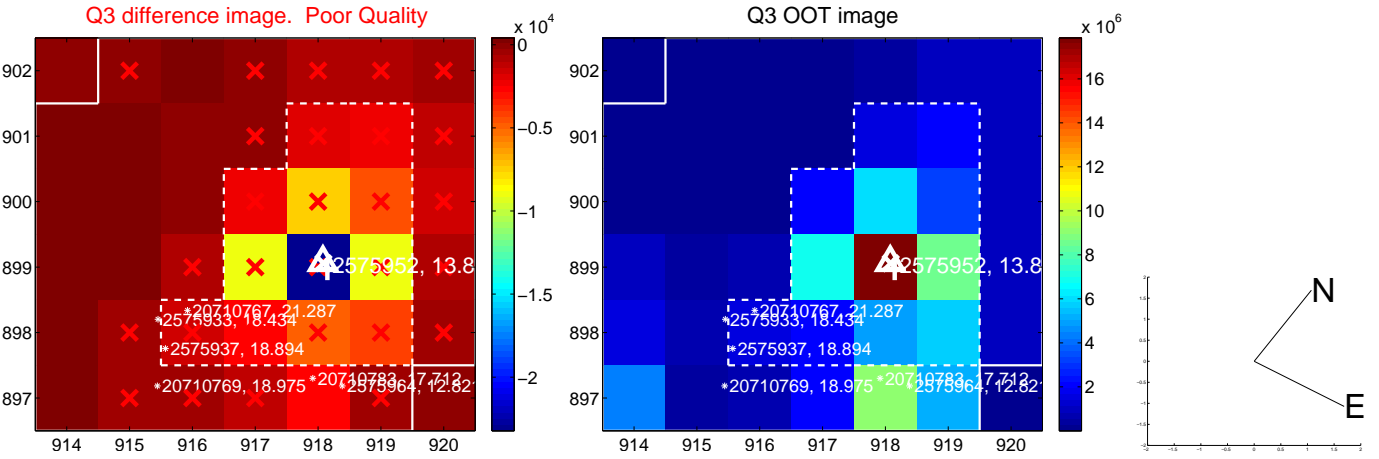
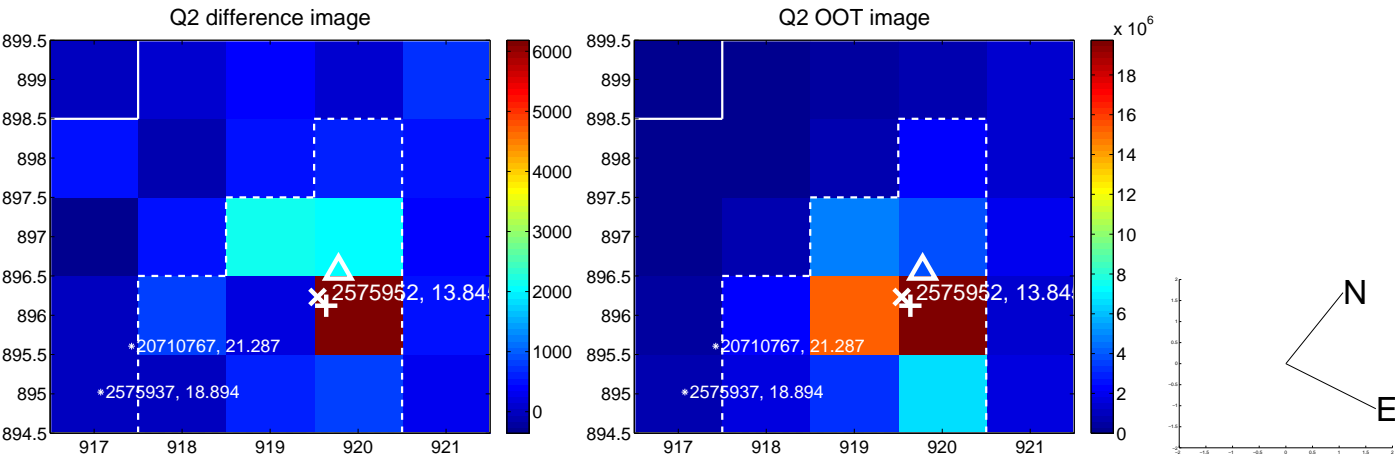
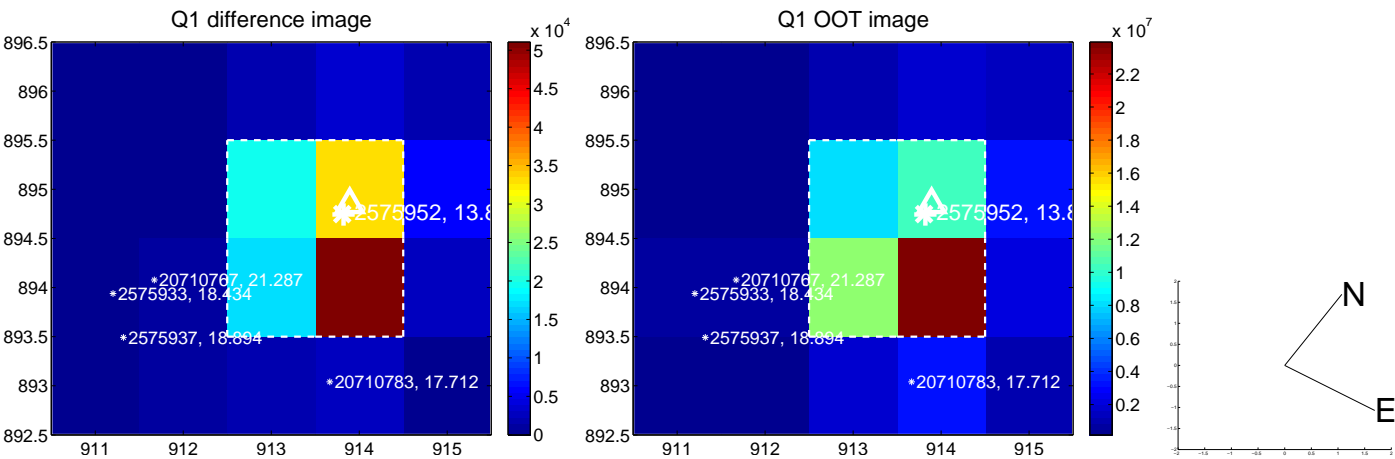
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.326 ± 0.236	1.38	-0.096 ± 0.123	0.312 ± 0.225
PRF-fit source offset from KIC position	0.250 ± 0.243	1.03	-0.013 ± 0.125	0.250 ± 0.239
photometric centroid source offset	0.50 ± 0.18	2.74	0.40 ± 0.19	-0.31 ± 0.16

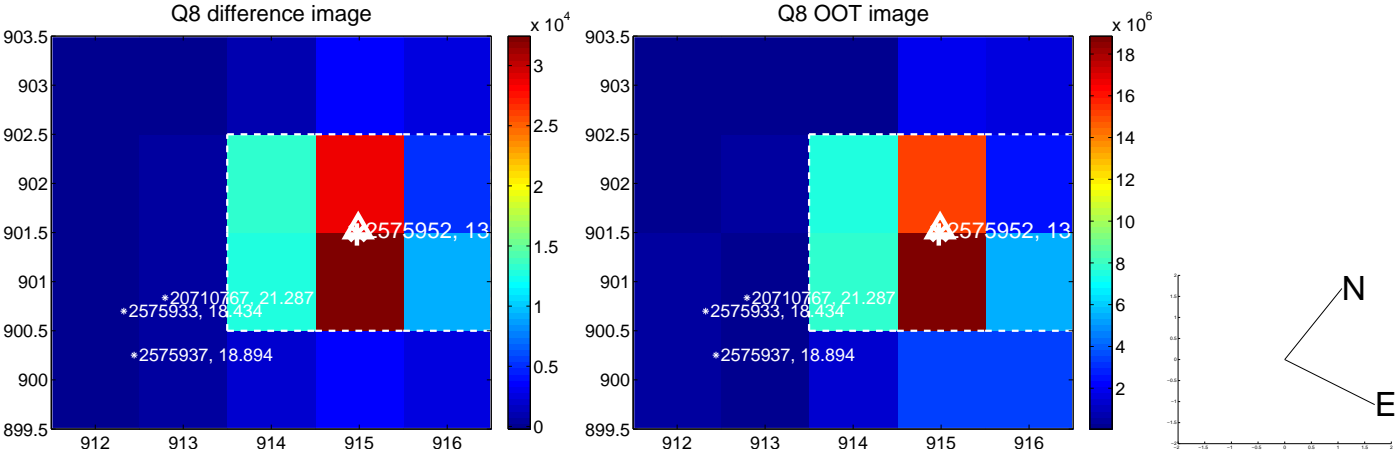
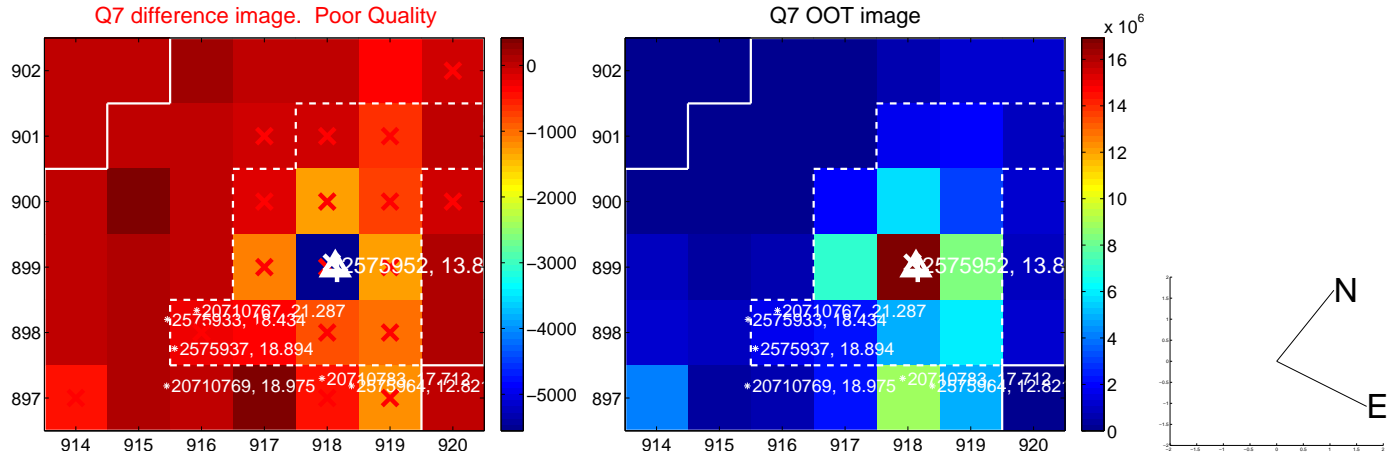
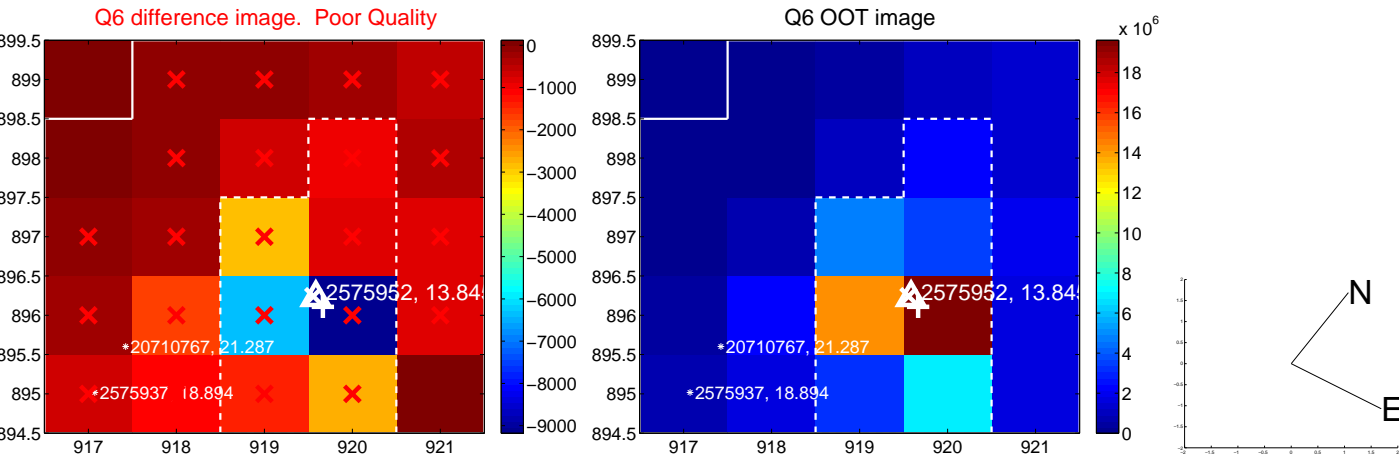
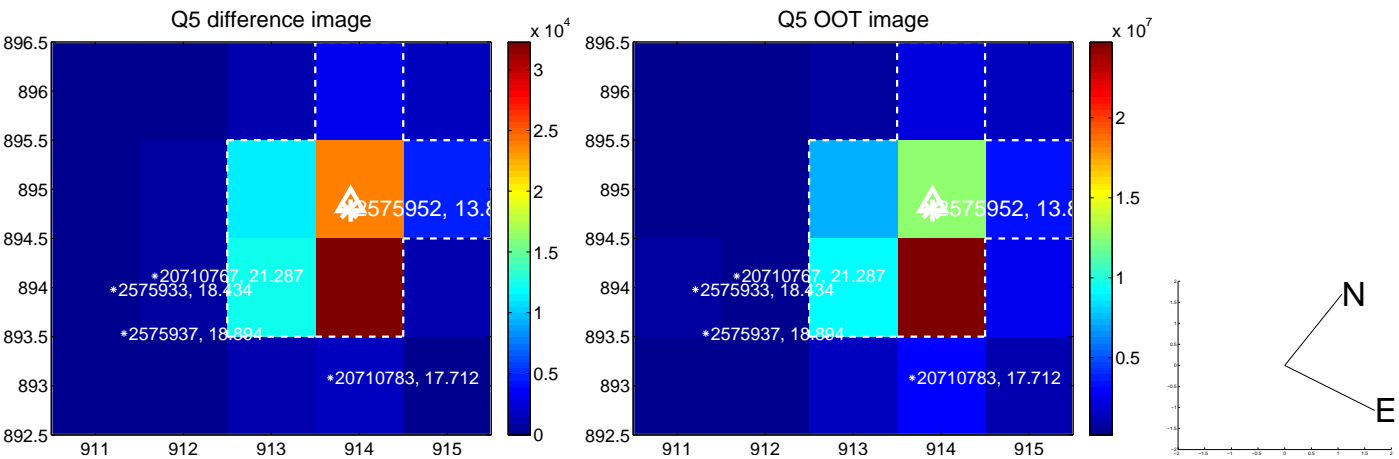


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

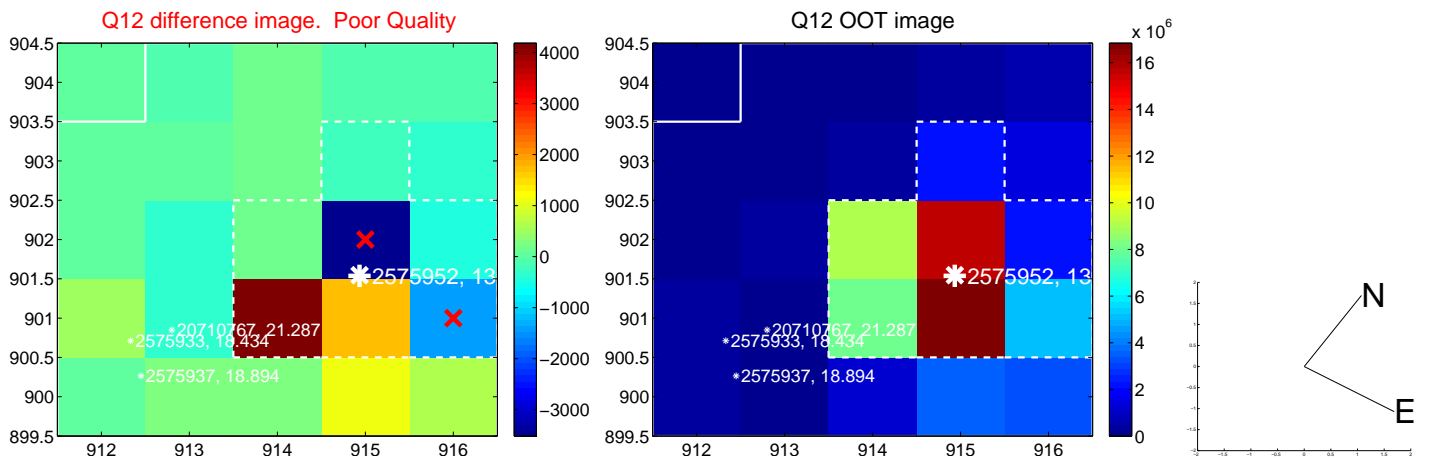
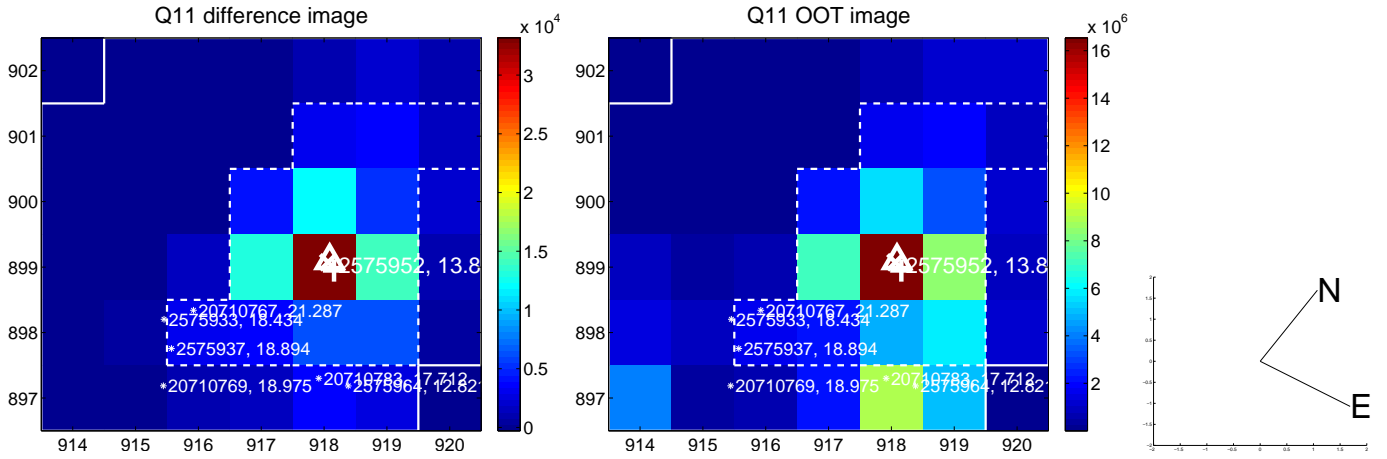
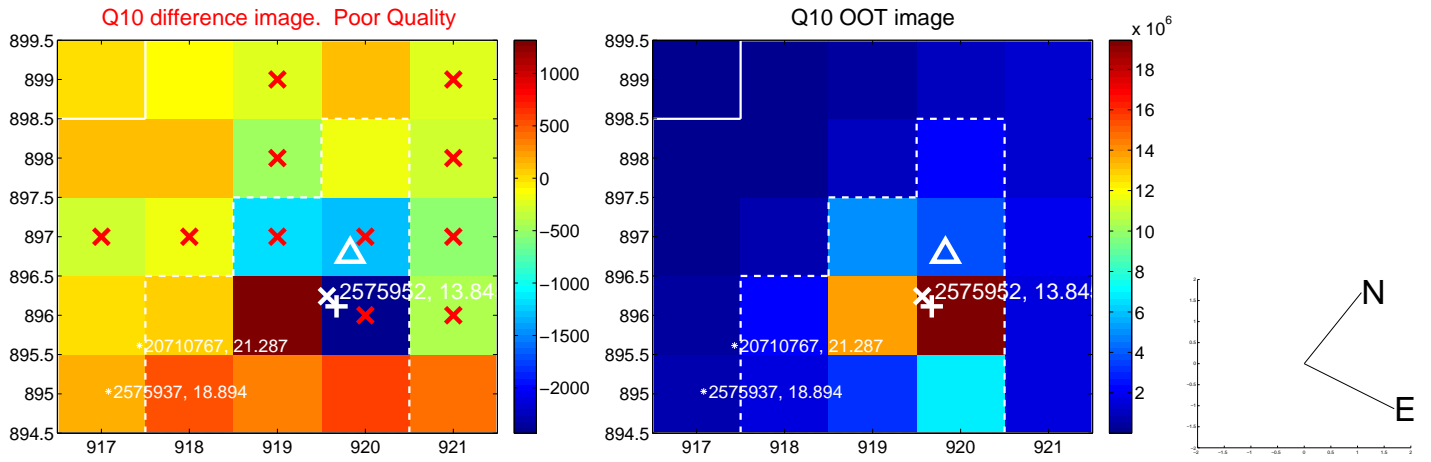
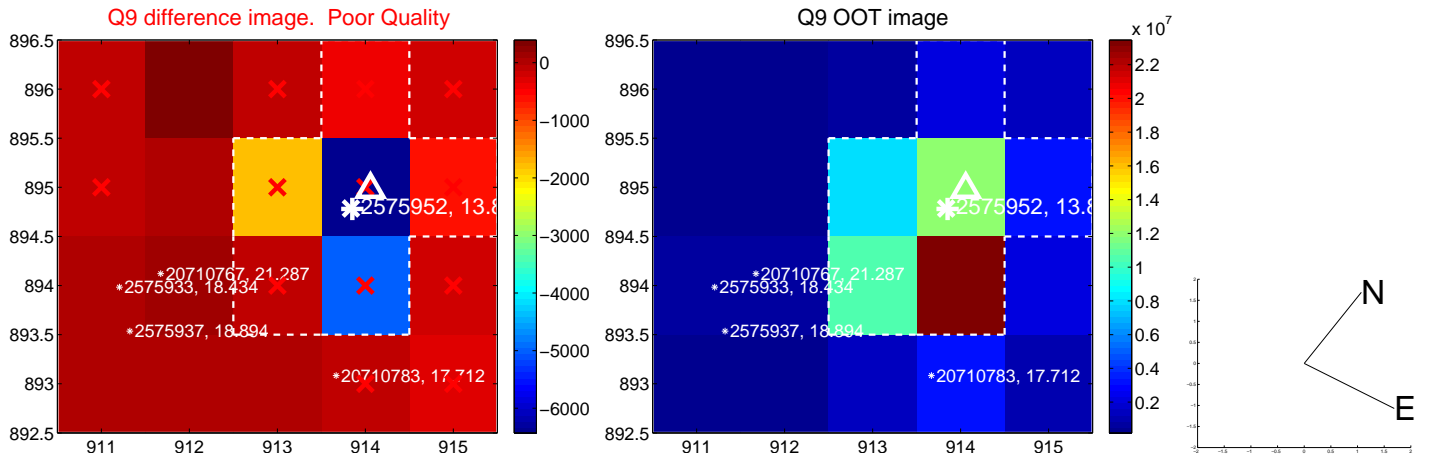
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



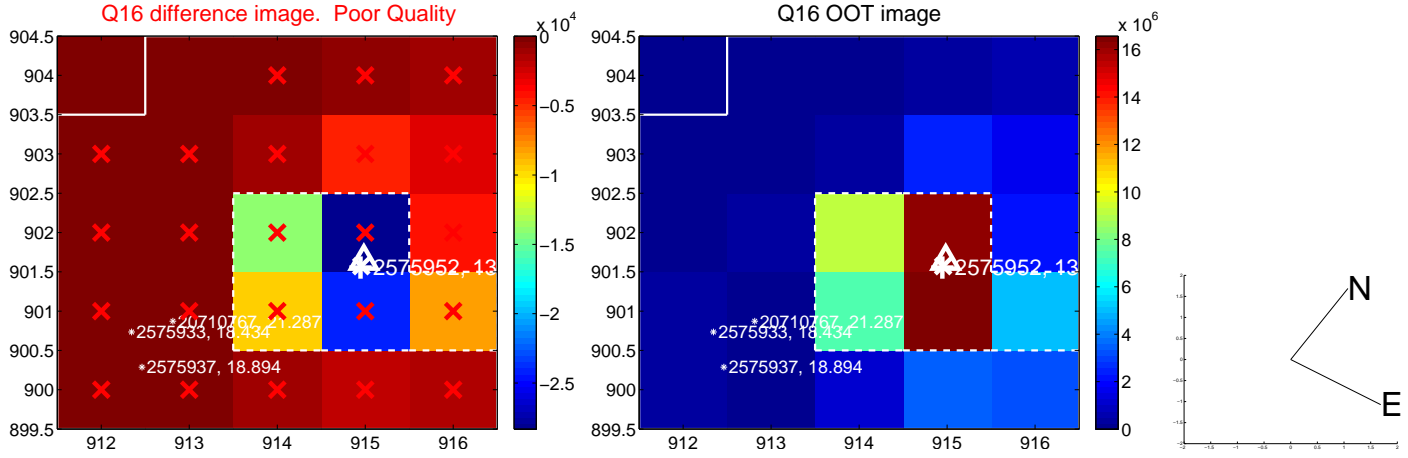
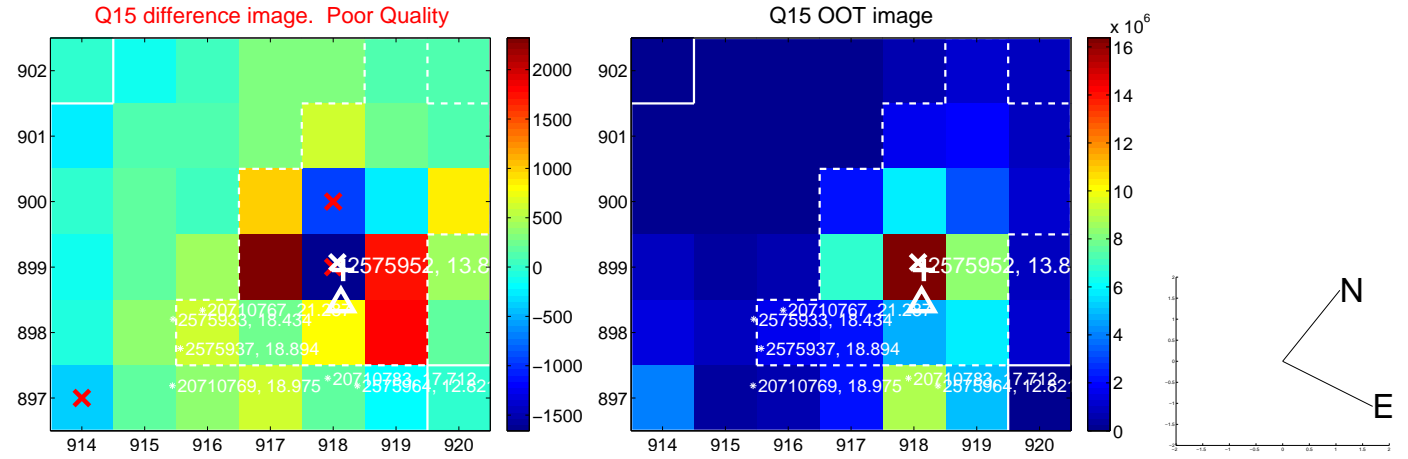
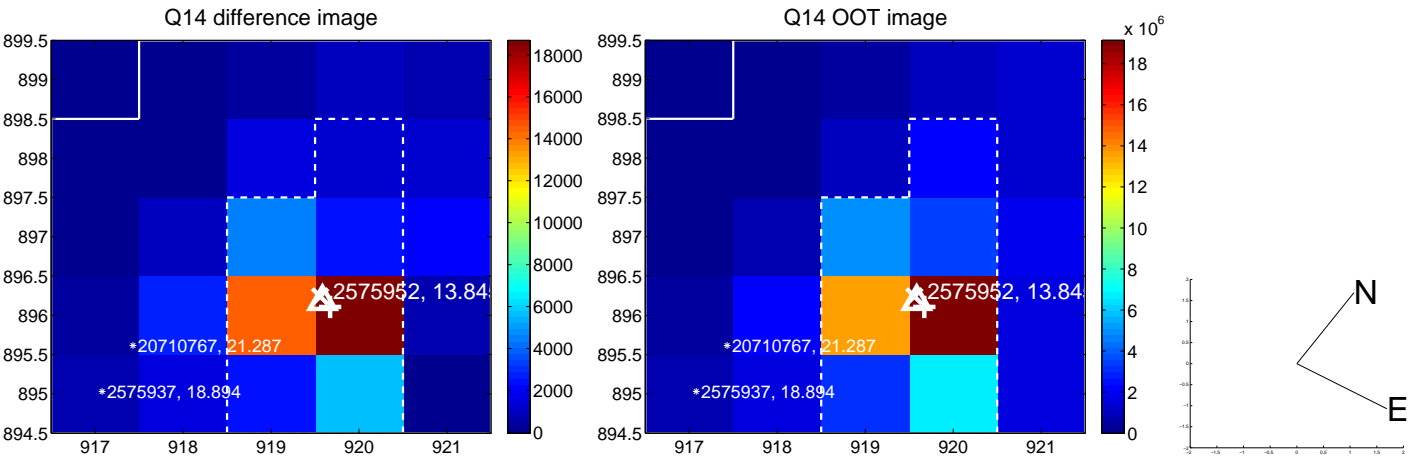
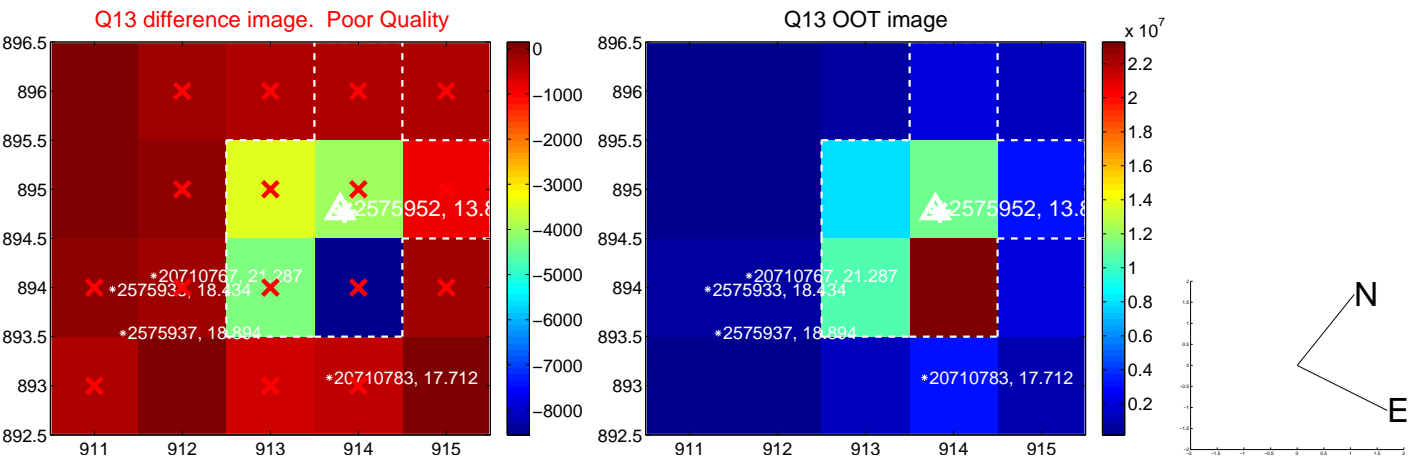
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



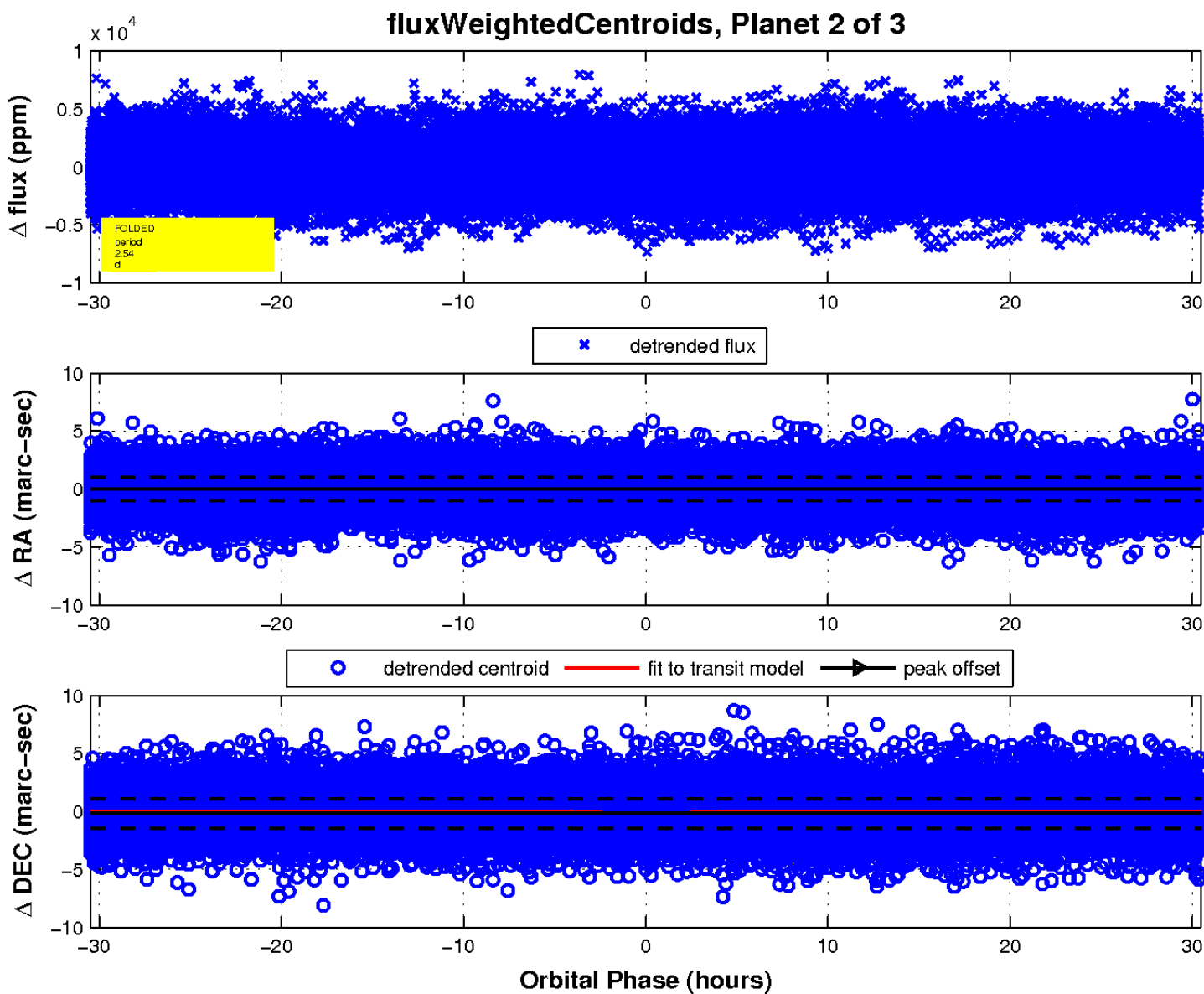
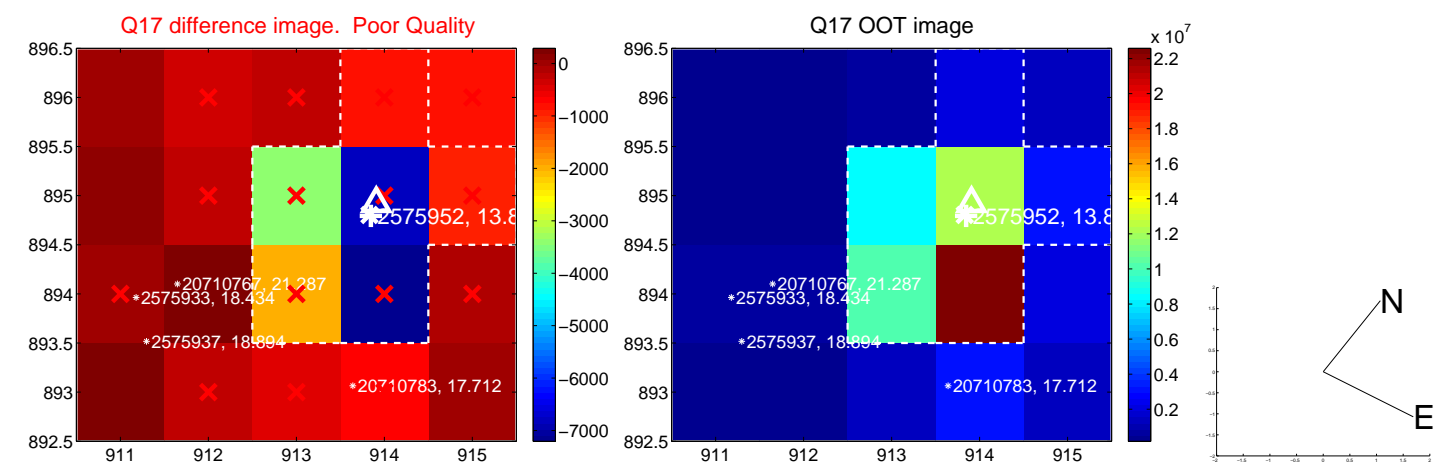
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

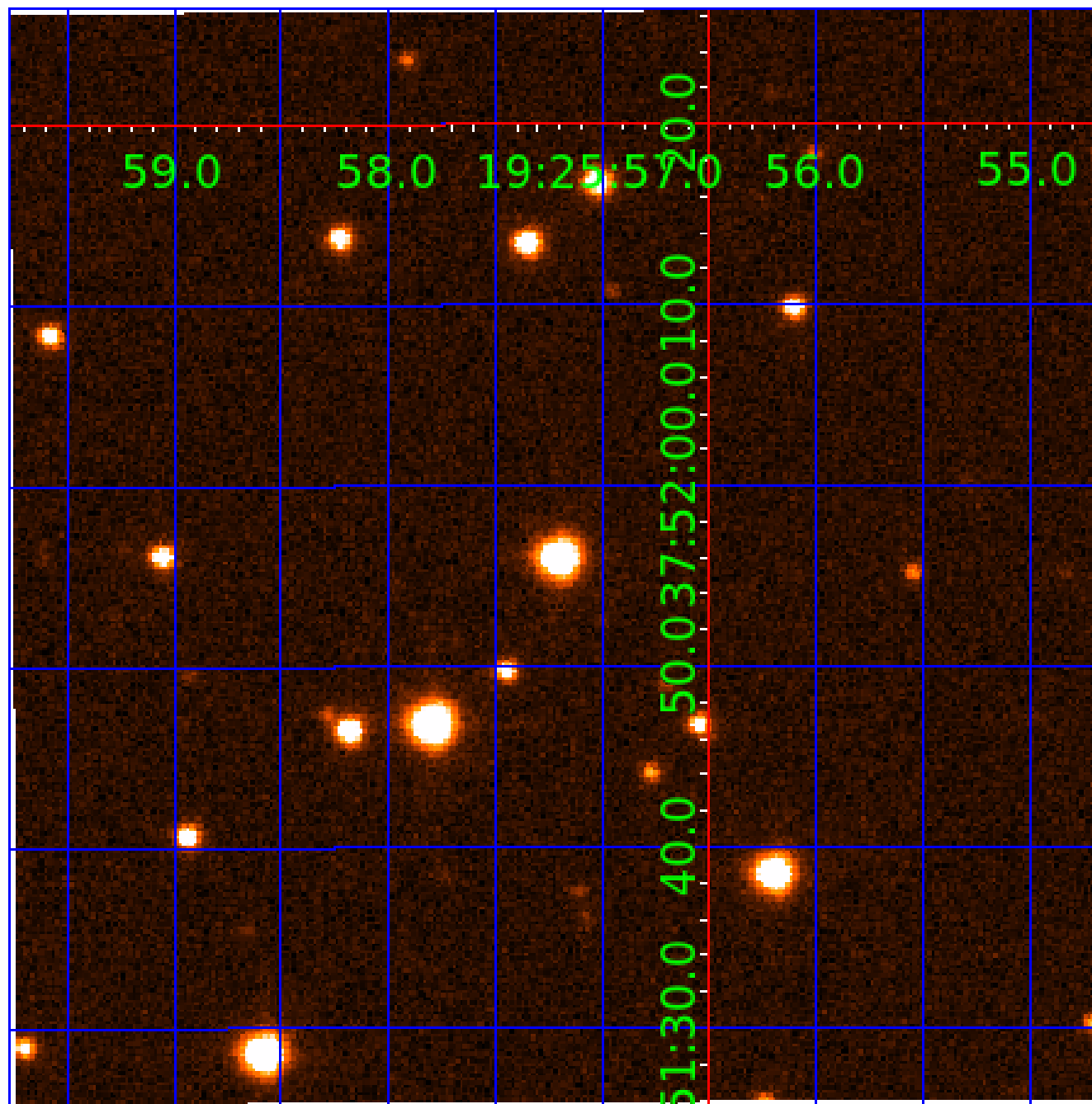


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 002575952

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
002575952-01	OBS	No	0.692109	131.905726	121.4	1.045	7.5	9.1	1.95	7580	2.50	33410.26
002575952-02	OBS	No	2.540394	131.929881	364.2	10.161	8.0	9.7	1.95	7580	7.06	5900.80
002575952-03	OBS	No	114.711157	155.827082	1366.1	5.165	9.1	5.4	1.95	7580	7.77	36.70

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
002575952-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
002575952-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—MOD_NONUNIQ_DV
002575952-03	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

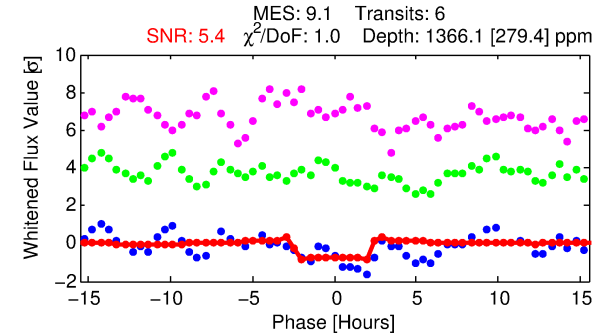
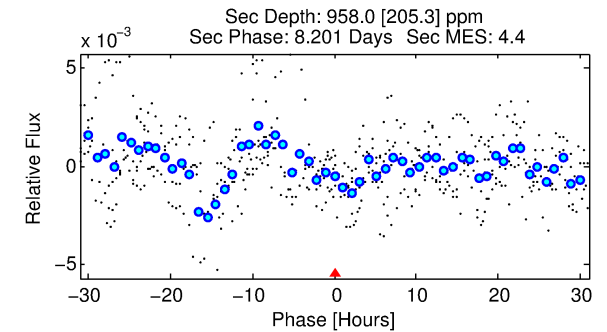
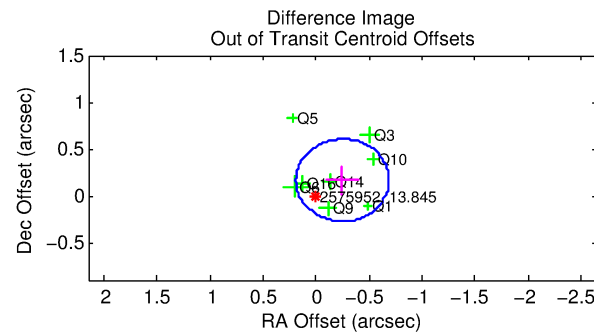
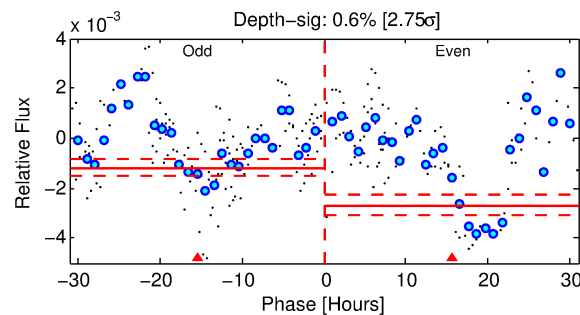
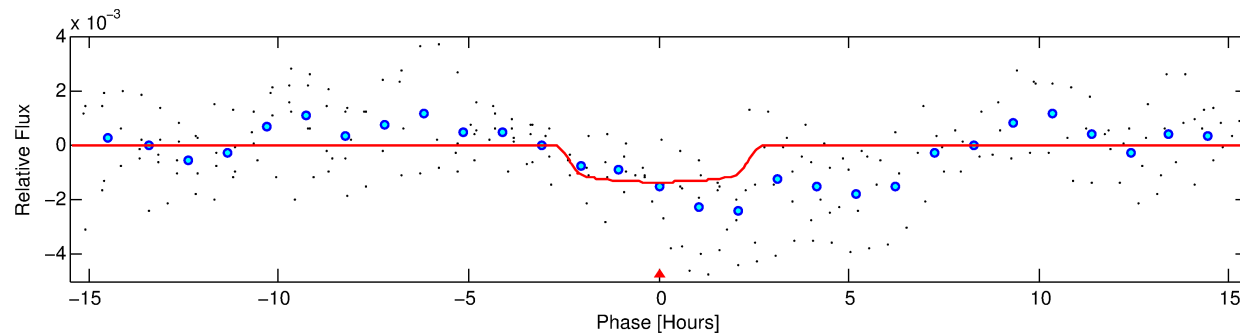
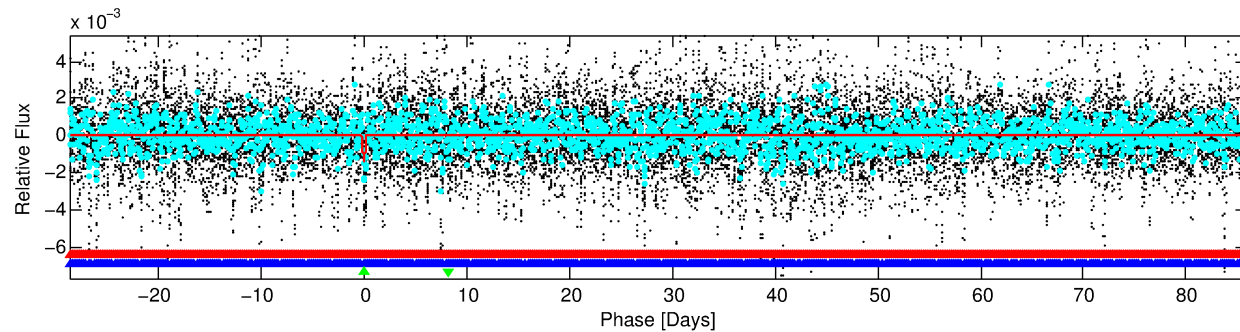
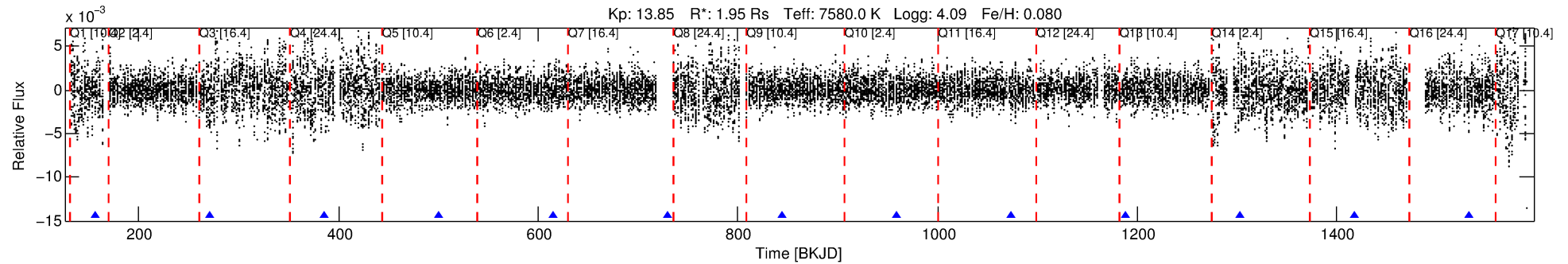
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 002575952-03

No Significant Match Found

DV One-Page Summary

KIC: 2575952 Candidate: 3 of 3 Period: 114.711 d



DV Fit Results:

Period = 114.71116 [0.00129] d
Epoch = 155.8271 [0.0083] BKJD
Rp/R* = 0.0365 [0.0107]
a/R* = 125.37 [200.70]
b = 0.73 [1.06]
Seff = 36.70 [13.70]
Teff = 628 [59] K
Rp = 7.77 [3.16] Re
a = 0.5533 [0.1290] AU
Ag = 2670.79 [1892.91] [1.41 σ]
Teffp = 6976 [1128] K [5.62 σ]

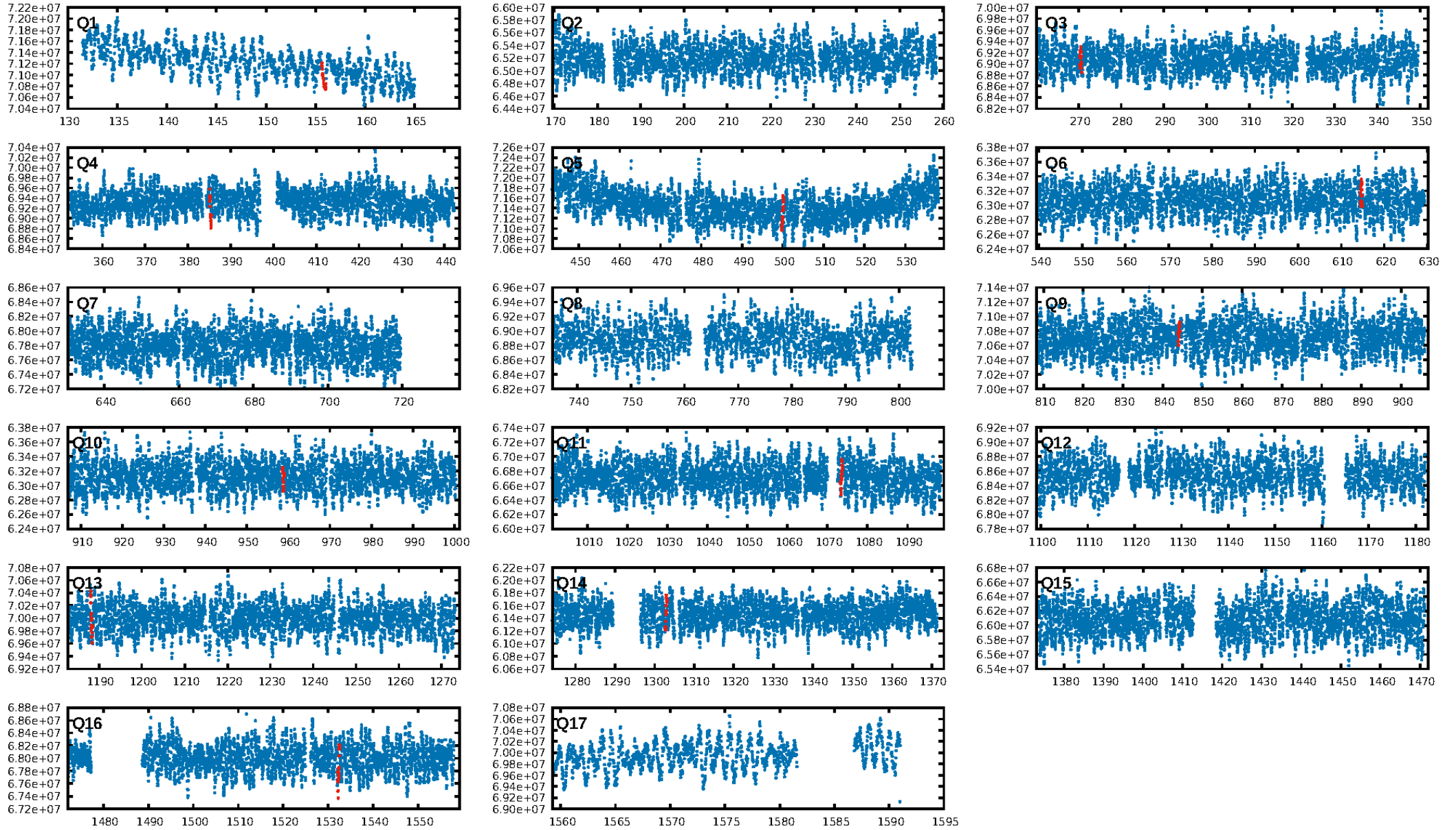
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [236.19 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 17.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.48e-12
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: -0.2189
Centroid-sig: 0.2%
Centroid-so: 0.638 arcsec [2.30 σ]
OotOffset-rm: 0.298 arcsec [2.03 σ]
KicOffset-rm: 0.206 arcsec [1.47 σ]
OotOffset-st: 3/1/1/3 [8]
KicOffset-st: 3/1/1/3 [8]
DiffImageQuality-fgm: 0.38 [3/8]
DiffImageOverlap-fno: 0.00 [0/8]

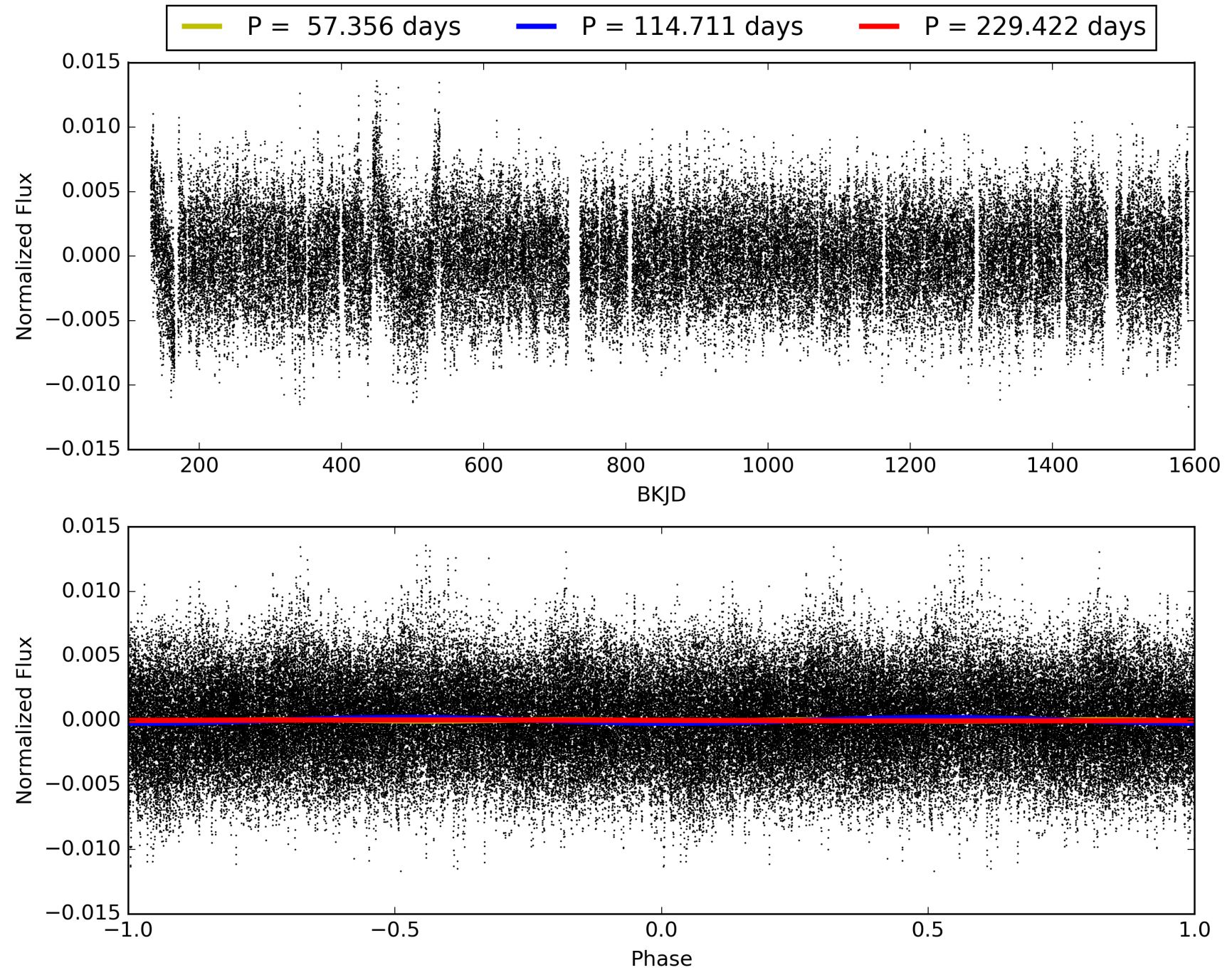
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 15:48:09 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 002575952-03, PDC Light Curves

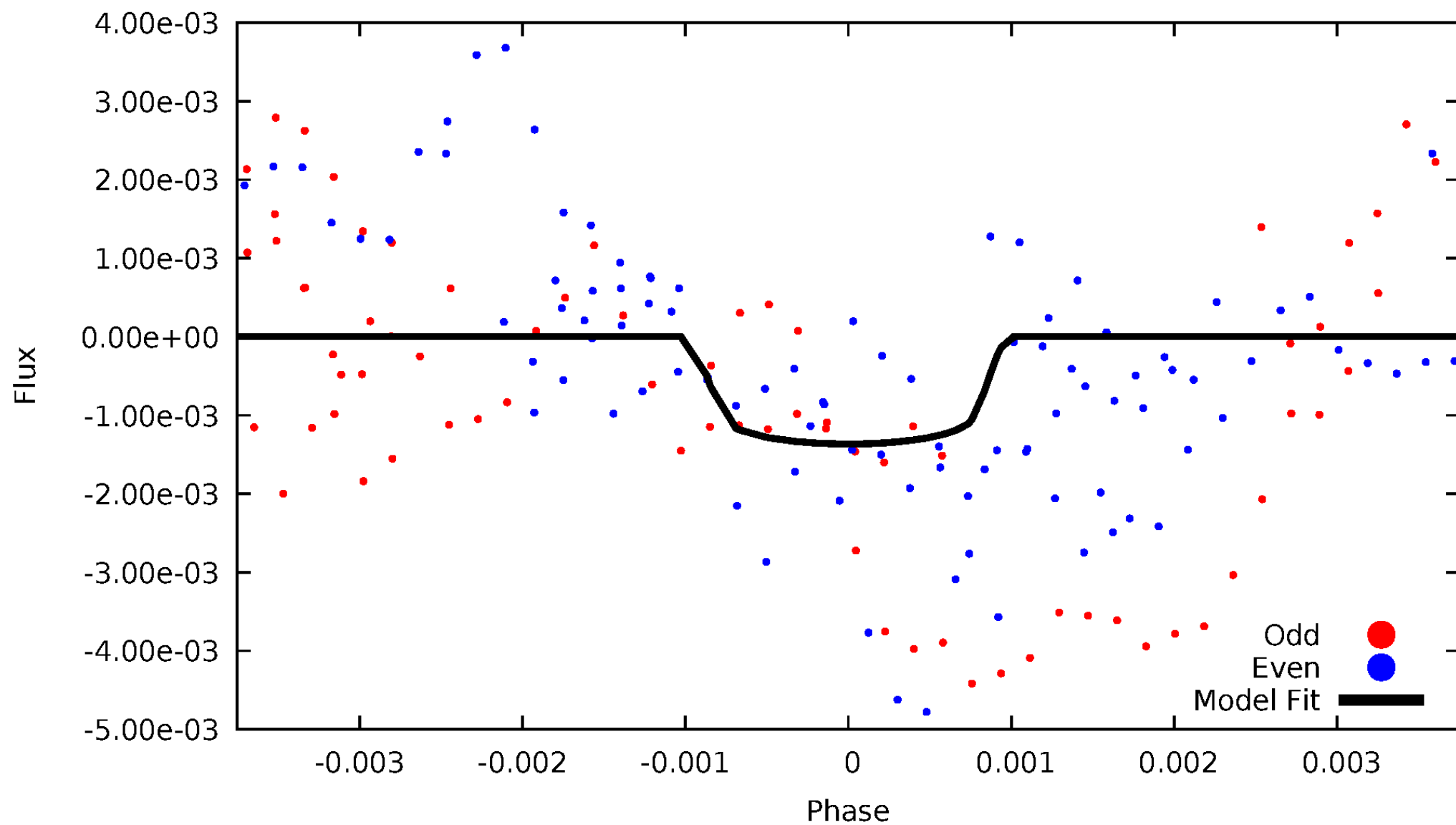


TCE 002575952-03



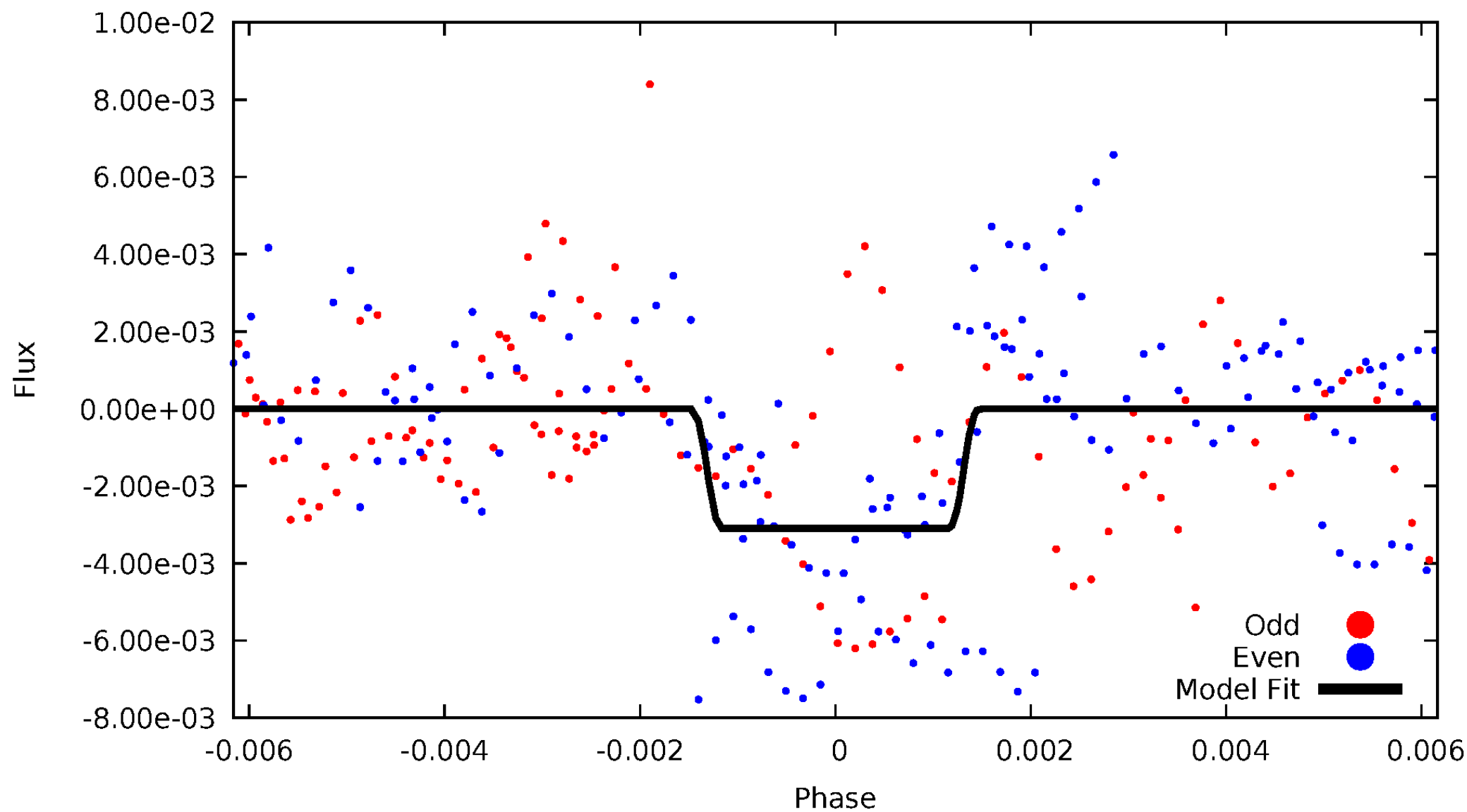
DV Odd/Even

TCE 002575952-03

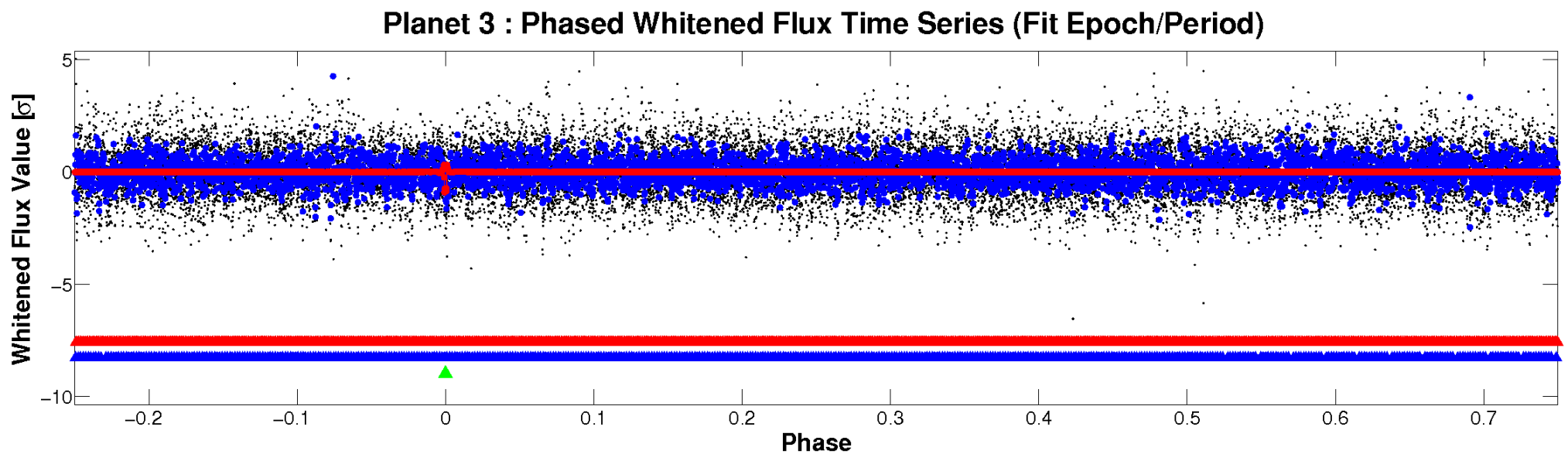
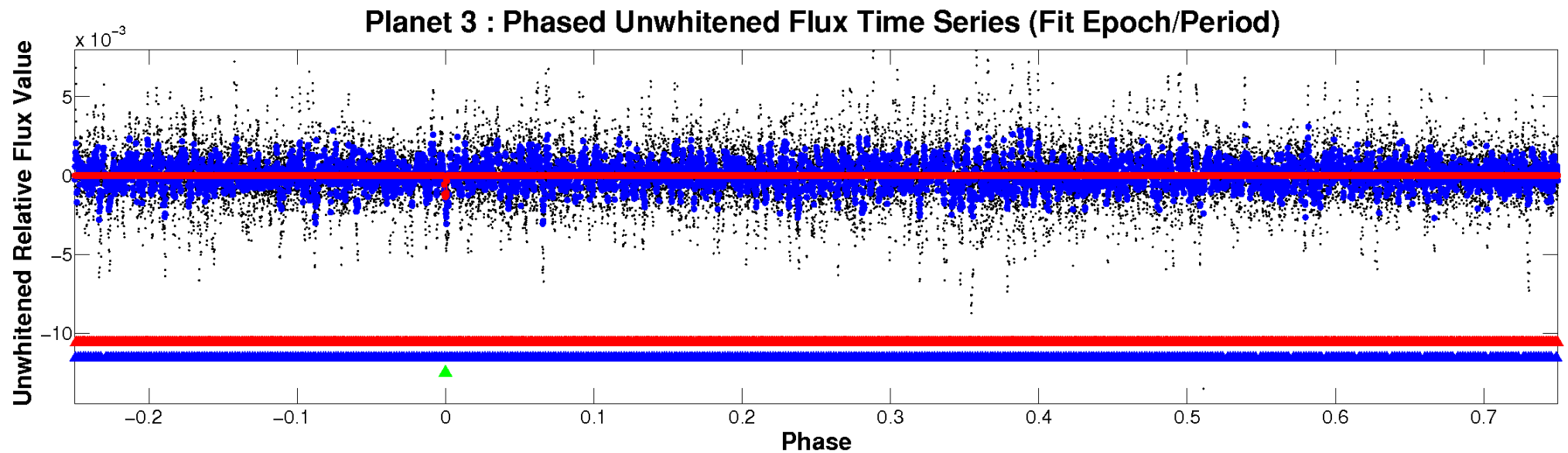


ALT Odd/Even

TCE 002575952-03

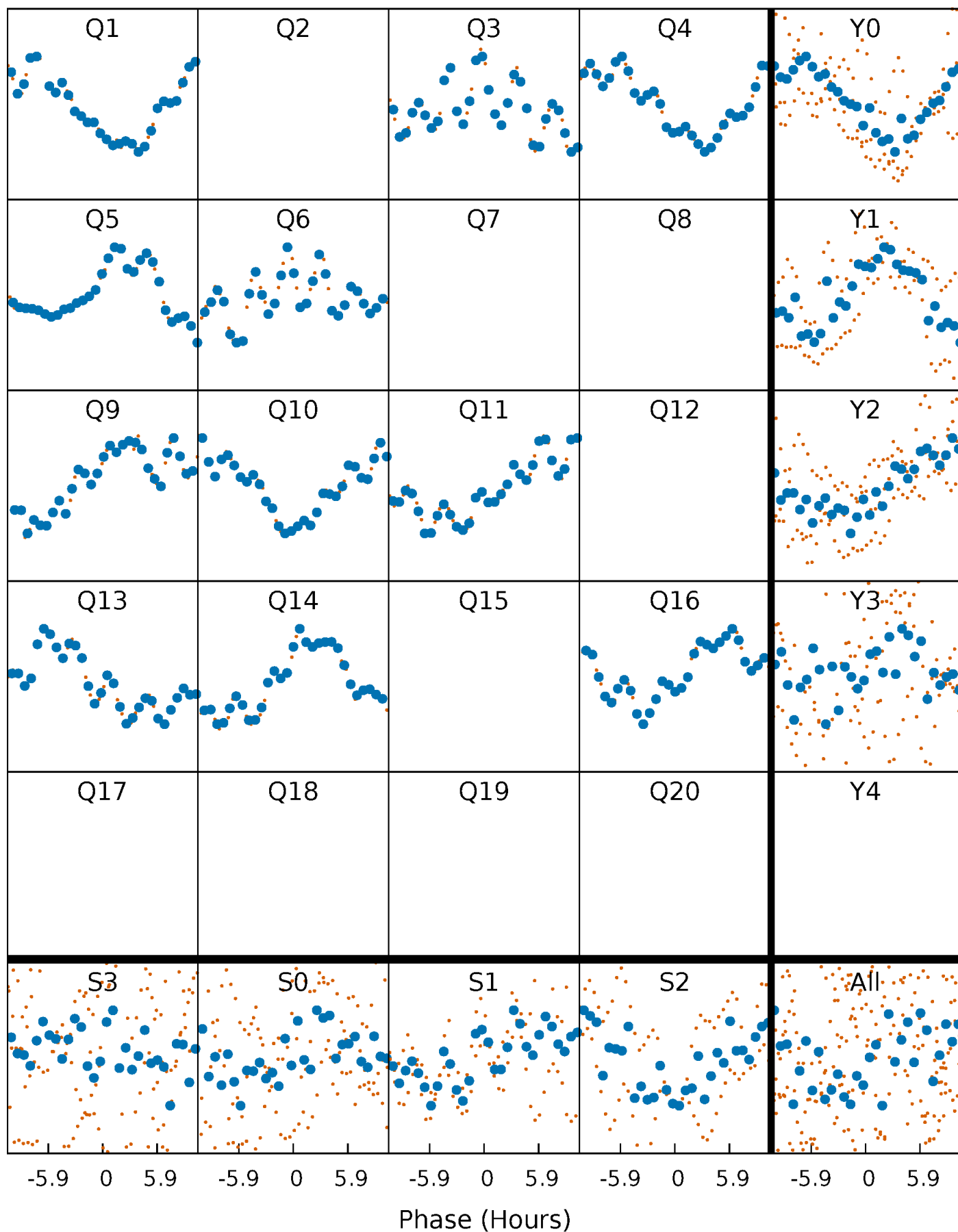


Non-Whitened Vs. Whitened Light Curve



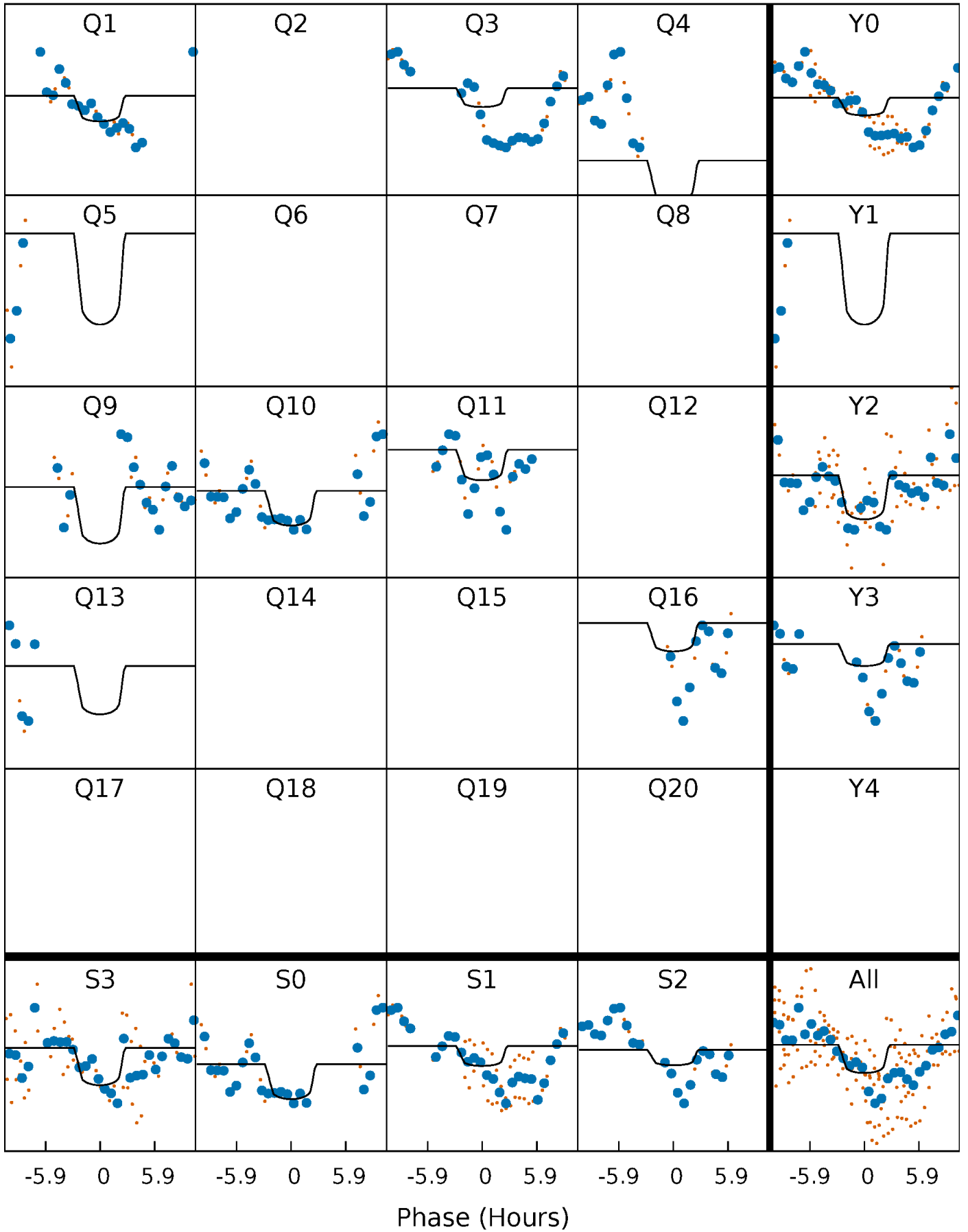
PDC Quarter-Phased Transit Curves

TCE 002575952-03 P=114.711157 Days $T_0=155.827082$ (BKJD)



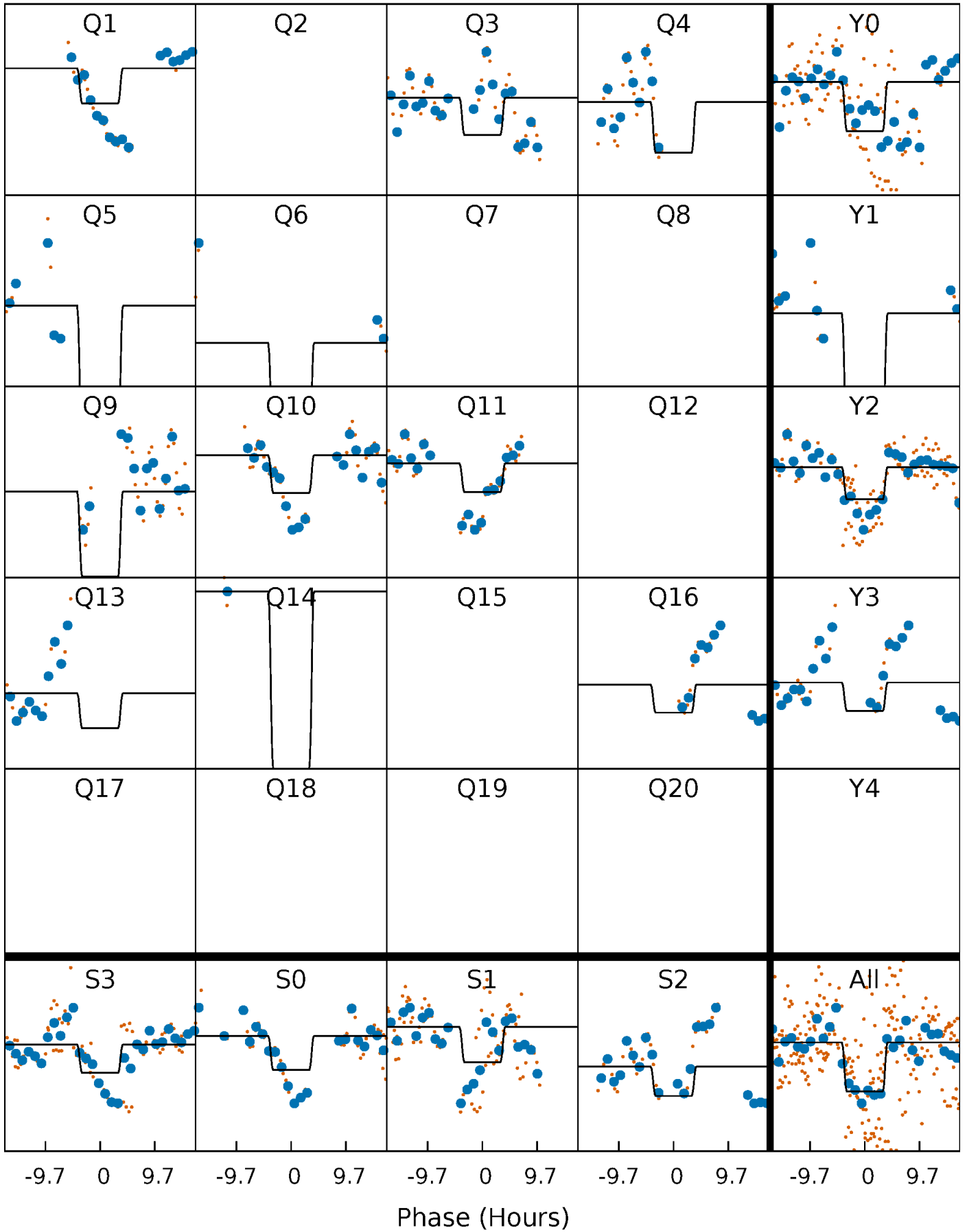
DV Quarter-Phased Transit Curves

TCE 002575952-03 P=114.711157 Days $T_0=155.827082$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

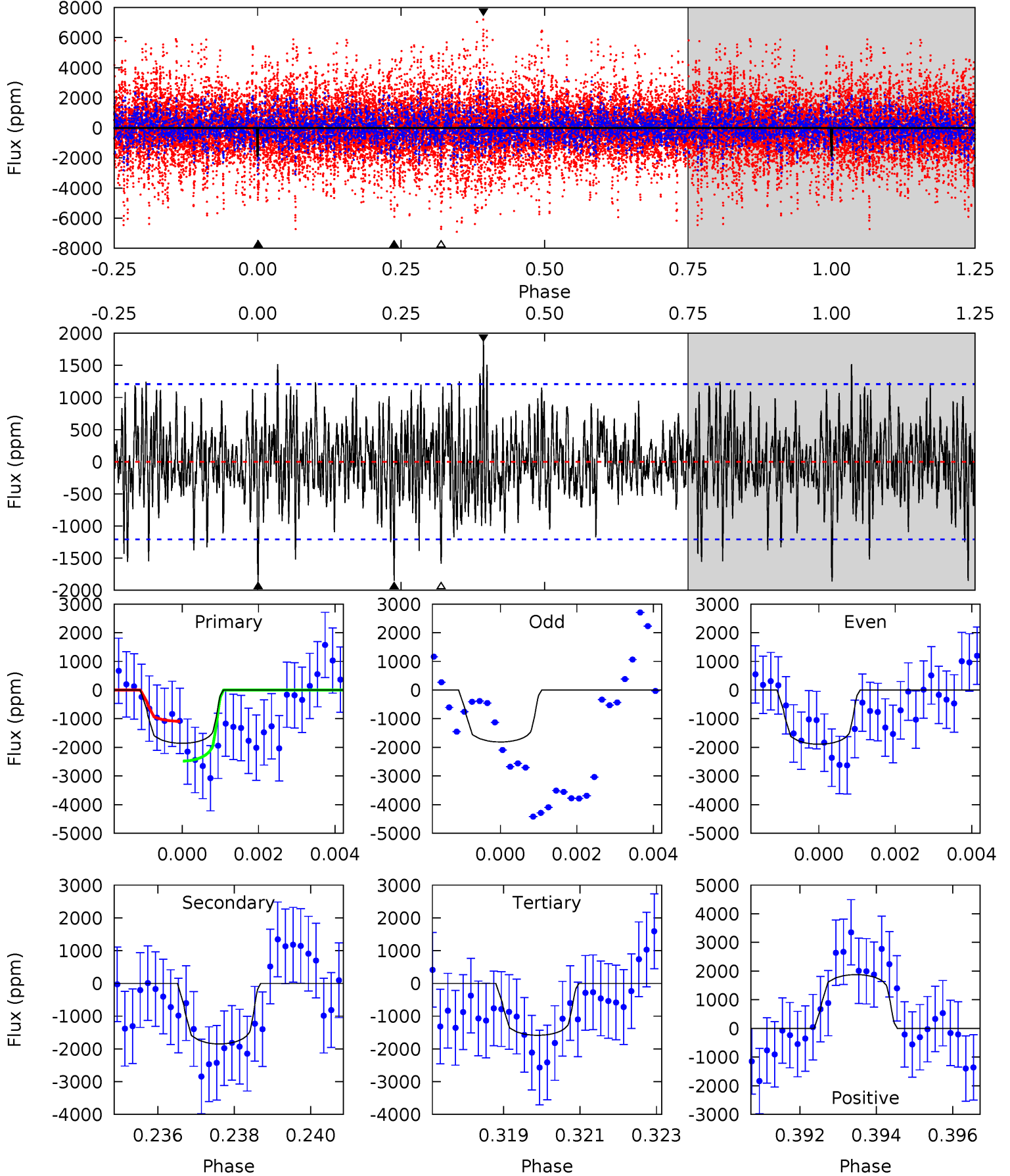
TCE 002575952-03 P=114.709571 Days $T_0=155.779066$ (BKJD)



DV Model-Shift Uniqueness Test

002575952-03, P = 114.711157 Days, E = 41.115925 Days

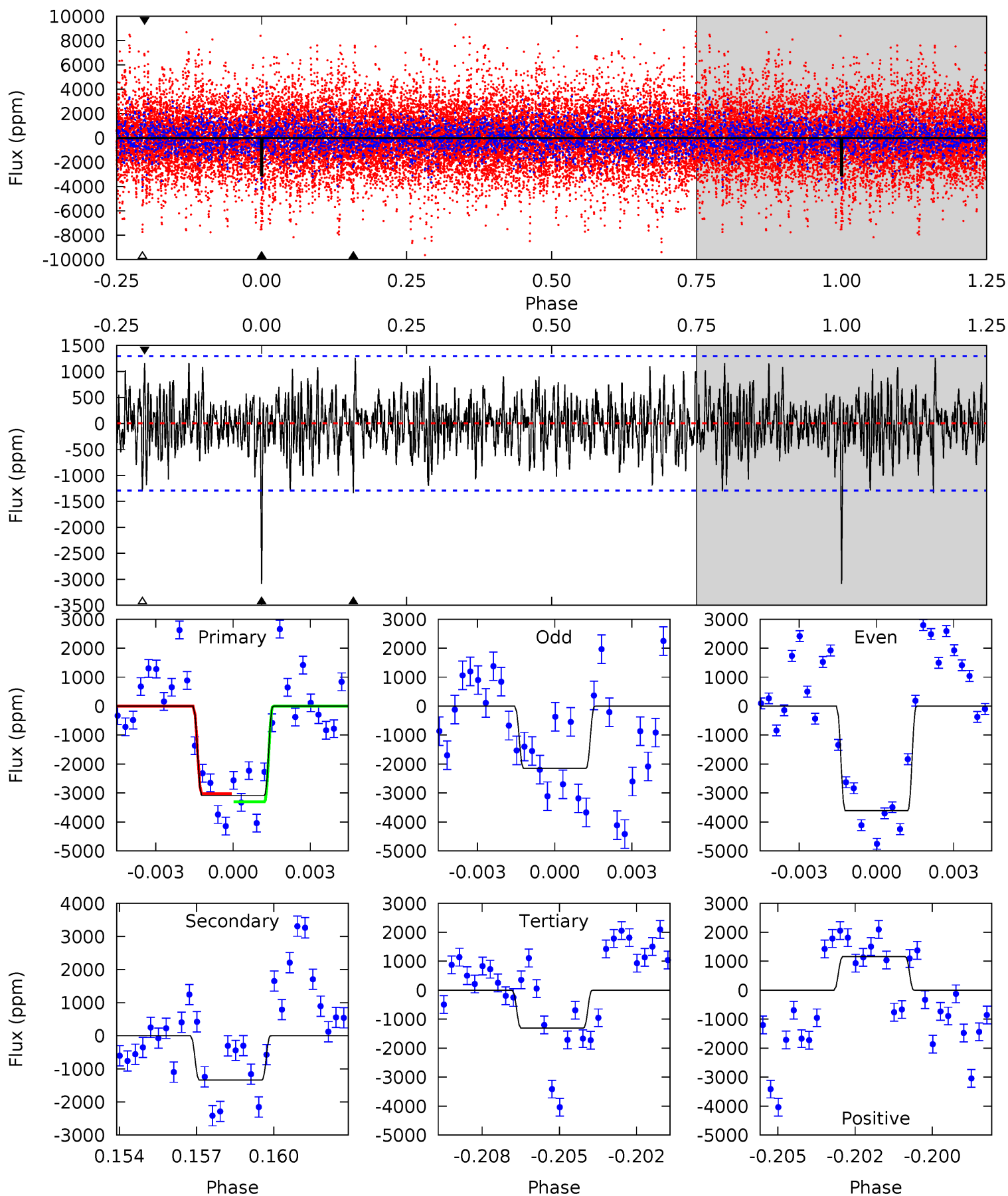
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.22	8.18	7.01	8.30	5.34	3.11	2.11	1.21	-0.08	1.17	-0.12	0.17	1.31	0.50	3.09



Alt Model-Shift Uniqueness Test

002575952-03, P = 114.709571 Days, E = 41.069495 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.5	5.45	5.32	4.71	5.26	2.98	1.63	7.23	7.84	0.14	0.74	2.86	1.02	0.29	0.56



Stellar Parameters For KIC 002575952

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7580^{+211}_{-316}	$4.093^{+0.120}_{-0.180}$	$0.080^{+0.200}_{-0.350}$	$1.949^{+0.549}_{-0.366}$	$1.717^{+0.204}_{-0.272}$	$0.327^{+0.232}_{-0.159}$
	+3%/-4%	+3%/-4%	+250%/-438%	+28%/-19%	+12%/-16%	+71%/-49%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 002575952-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1849 ± 226	$7.89^{+2.61}_{-2.47}$	880^{+60}_{-55}	8326^{+2121}_{-1266}	4852^{+5777}_{-2130}
Alt.	-1340 ± 246	$11.87^{+2.75}_{-2.51}$	880^{+62}_{-53}	5998^{+792}_{-571}	1568^{+963}_{-607}

T_{max} = Theoretical Maximum Planetary Temperature
 T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)
 A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

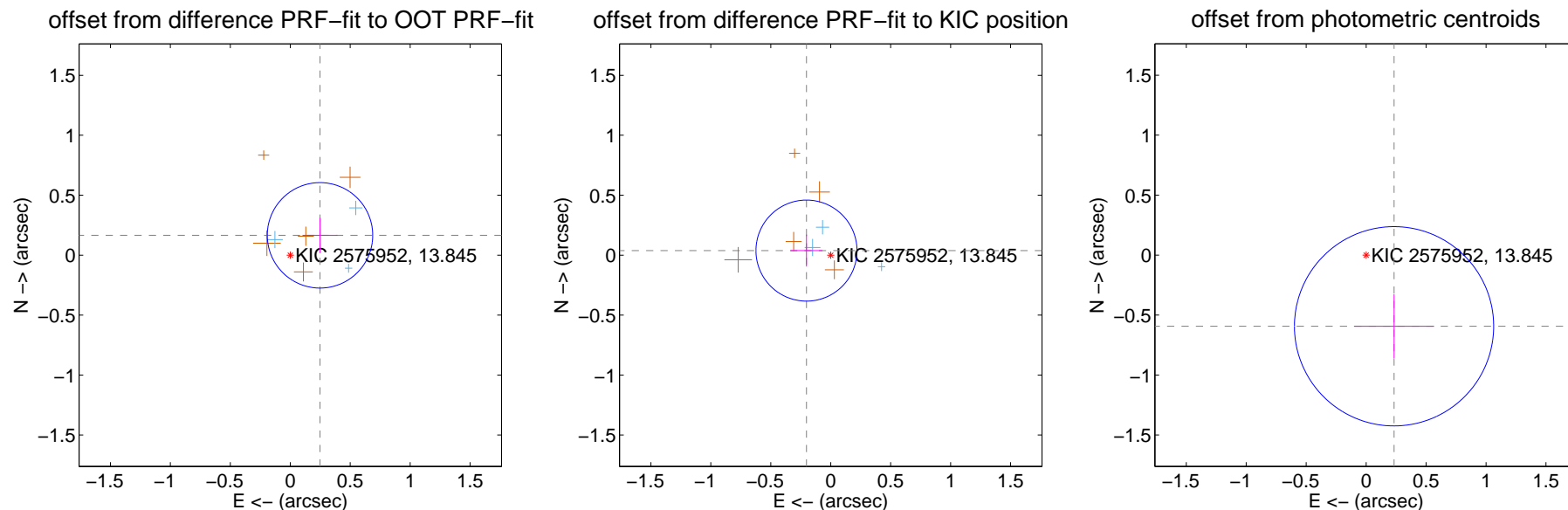
DV Centroid Data

Supplemental centroid analysis for 002575952-03. Kepler magnitude: 13.85. Transit SNR 5.36

There are 3 quarters with good PRF difference image offsets

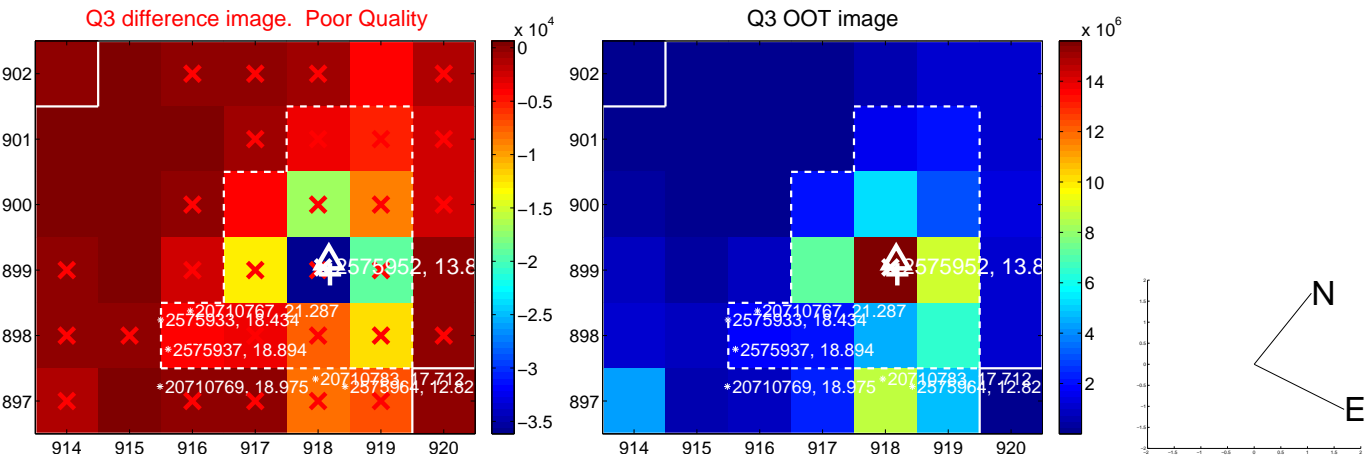
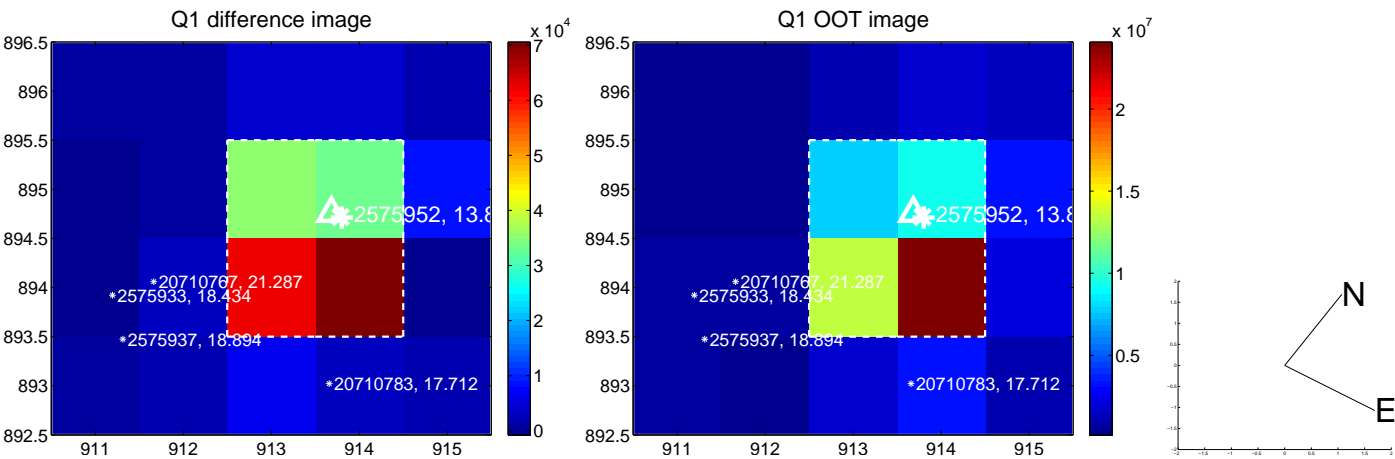
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.298 ± 0.147	2.03	-0.248 ± 0.146	0.165 ± 0.148
PRF-fit source offset from KIC position	0.206 ± 0.140	1.47	0.202 ± 0.134	0.038 ± 0.133
photometric centroid source offset	0.64 ± 0.28	2.30	-0.23 ± 0.33	-0.59 ± 0.27

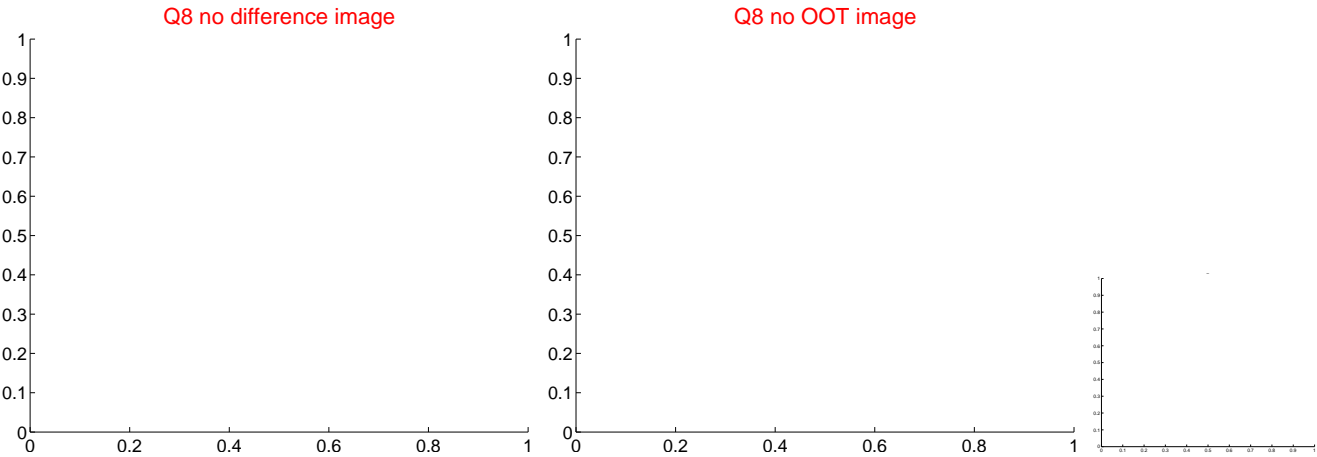
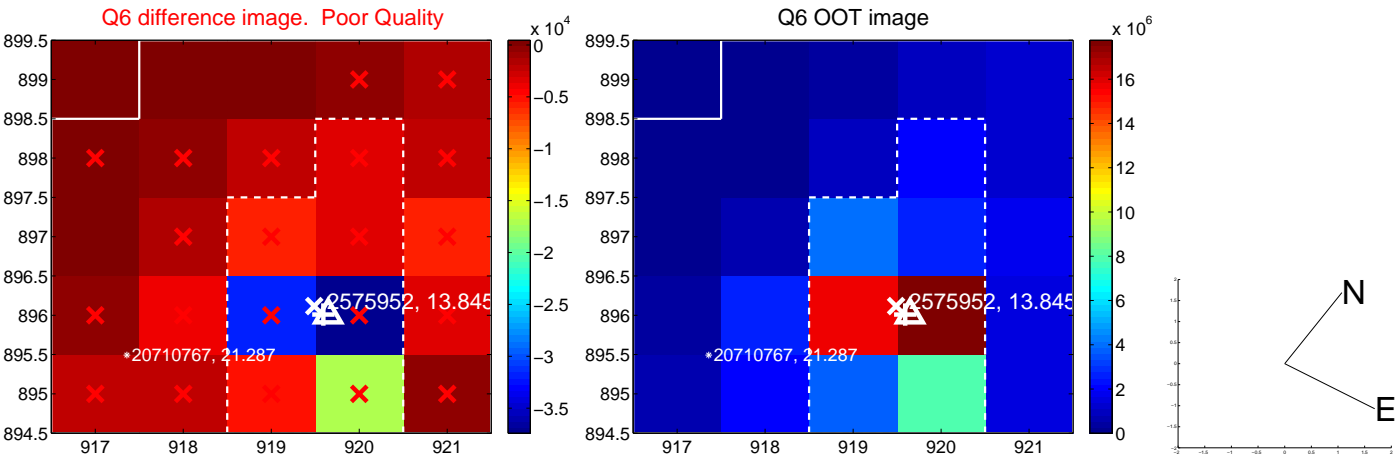
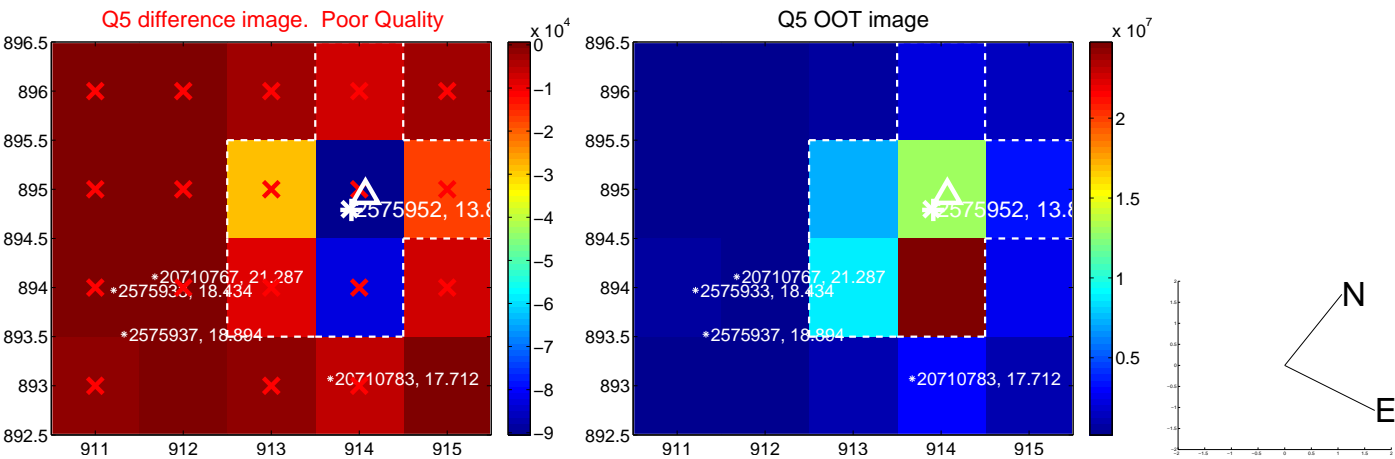


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

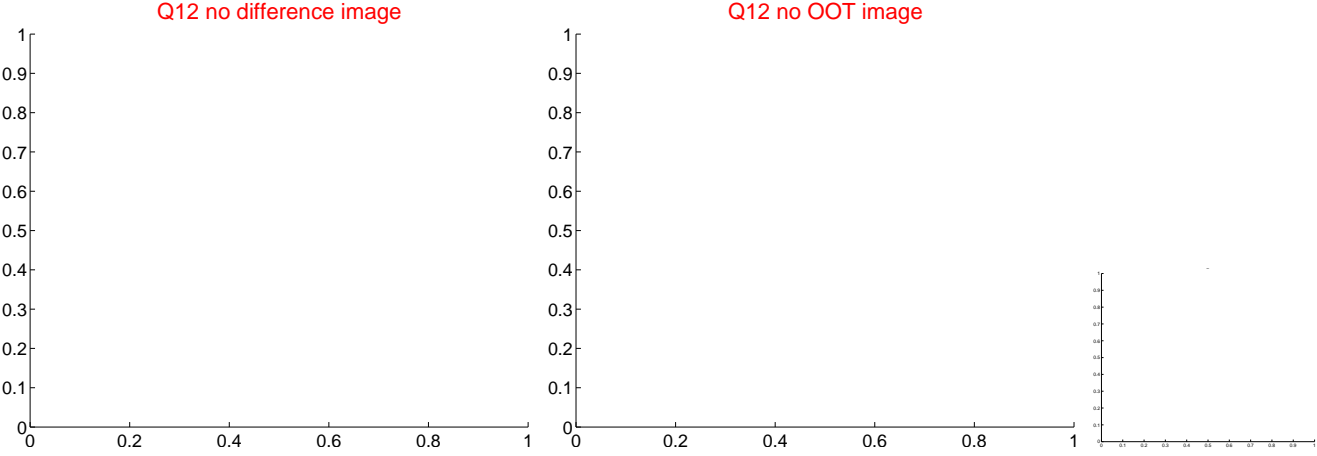
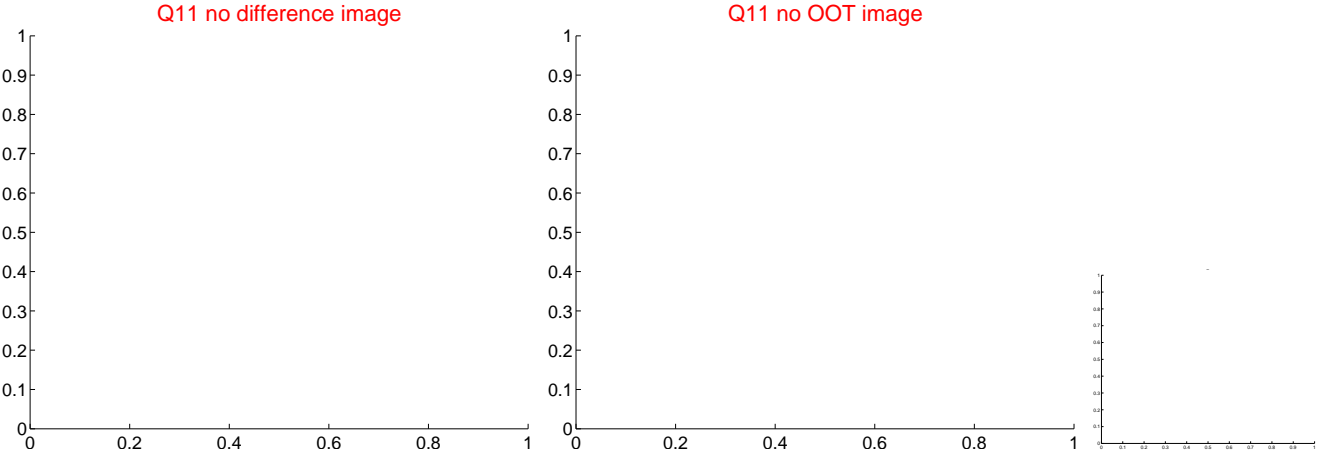
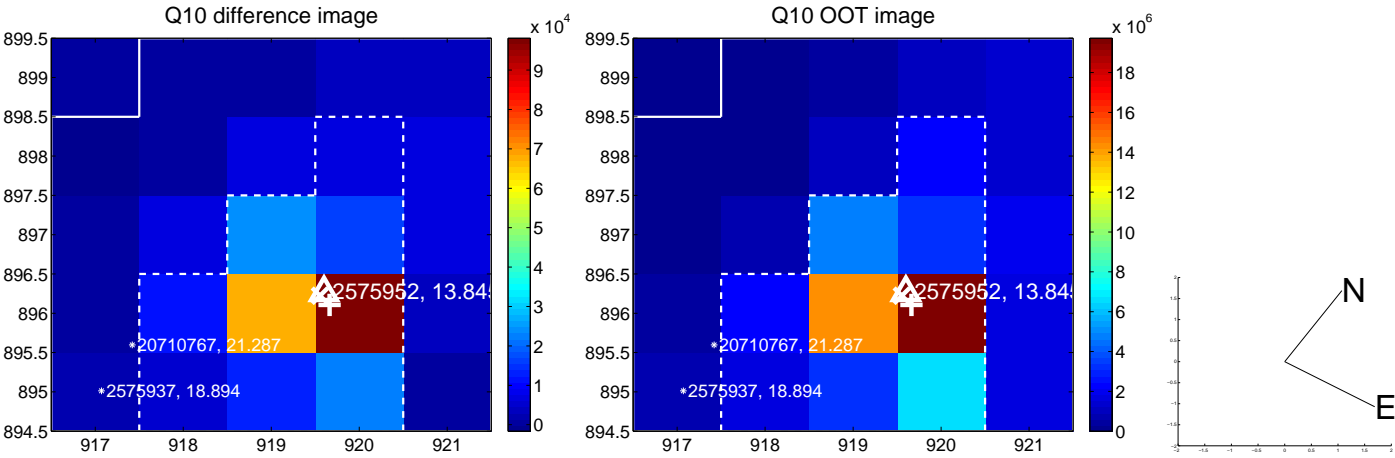
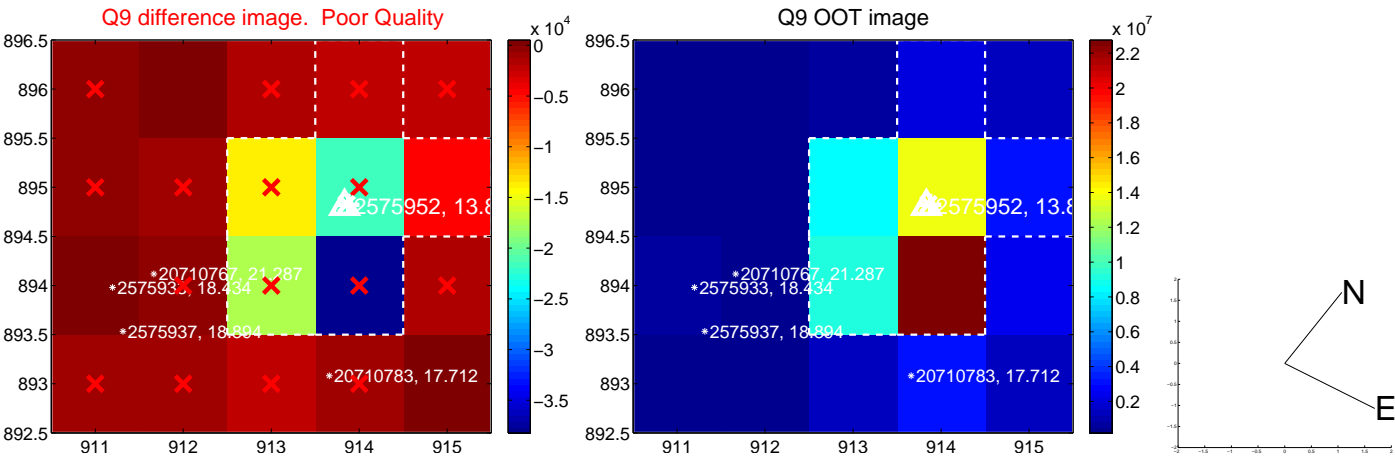
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



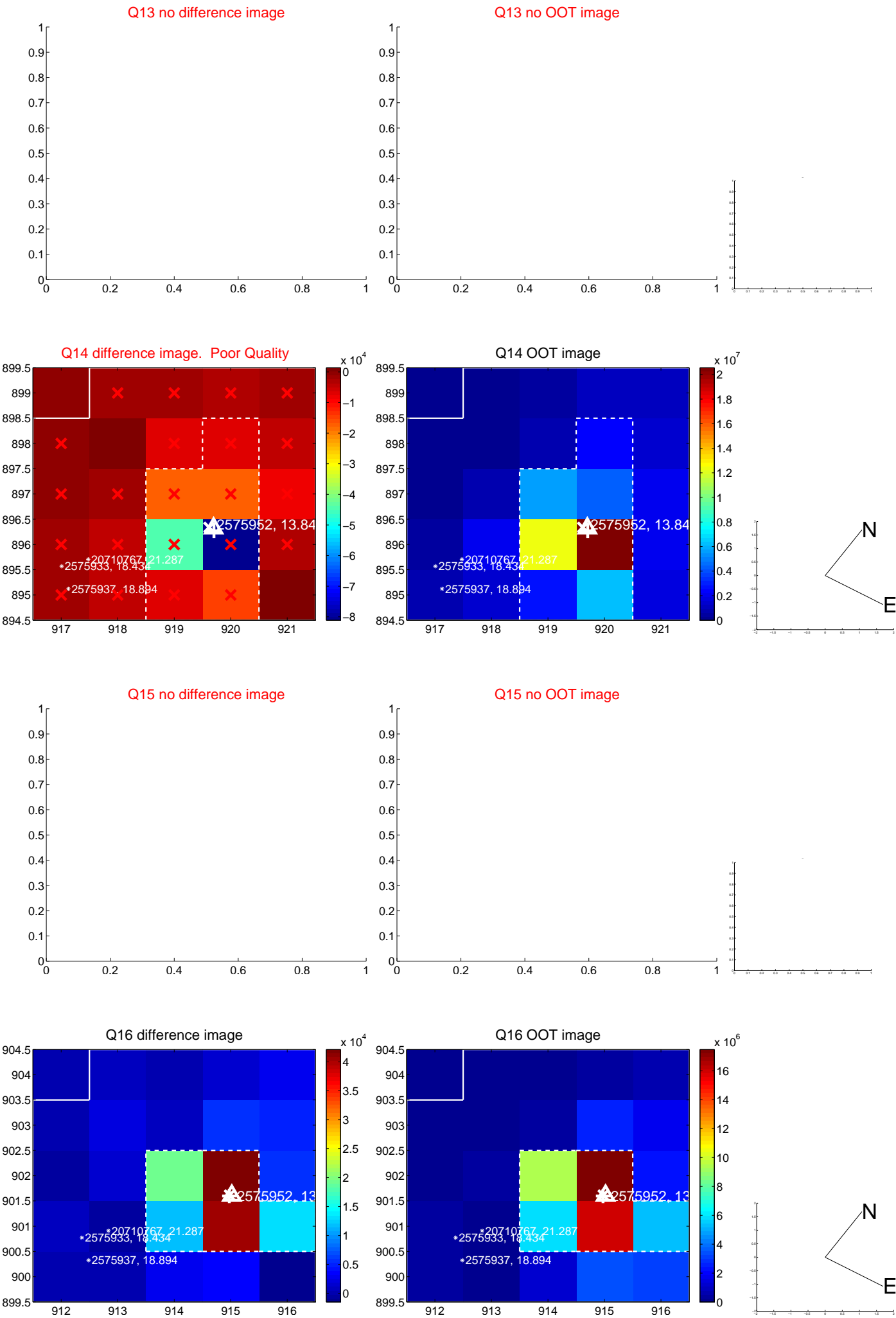
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



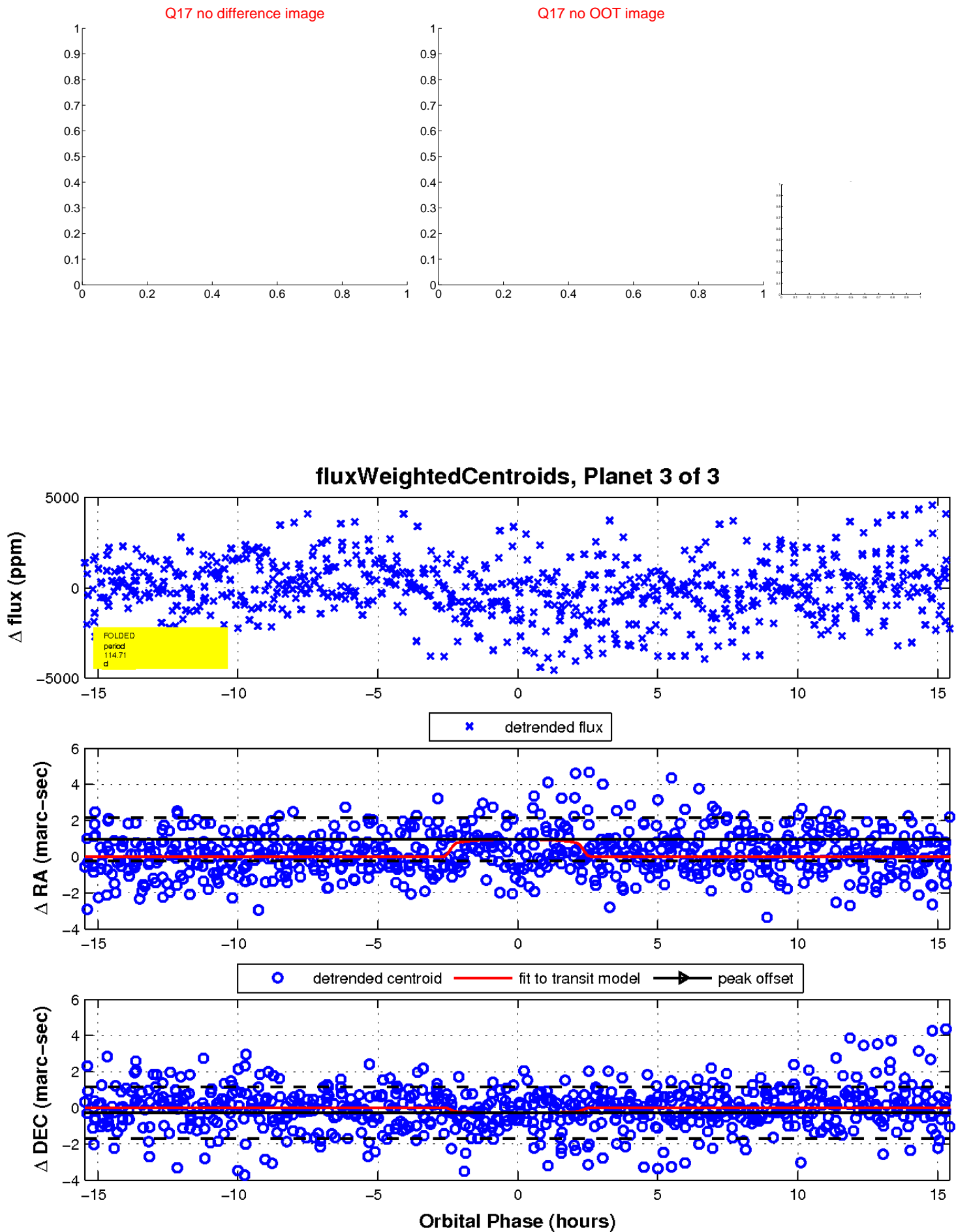
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

